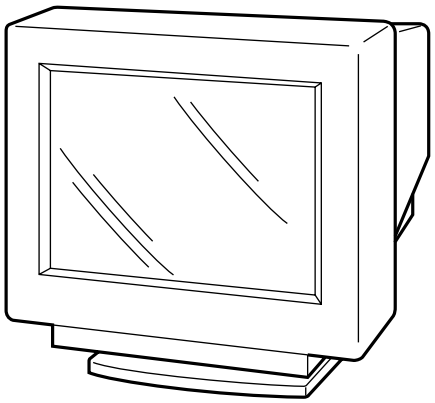
GDM-200PS/200PST/200PST9

SERVICE MANUAL

REVISED



GDM-200PS
US Model
Canadian Model
SH Model
Chassis No. SCC-L11B-A

GDM-200PST
AEP Model
UK Model
GDM-200PST9
AEP Model
Chassis No. SCC-L11C-A

N3 CHASSIS

SPECIFICATIONS

Picture tube	0.25 mm aperture grille pitch 17 inches measured diagonally 90-degree deflection
Viewable image size	Approx. 327 × 243 mm (w/h) (12 7/8 × 9 5/8 inches) 16.0” viewing image
Resolution	Horizontal: Max. 1280 dots Vertical: Max. 1024 lines
Standard image area	Approx. 312 × 234 mm (w/h) (12 3/8 × 9 1/4 inches) or Approx. 293 × 234 mm (w/h) (11 5/8 × 9 1/4 inches)
Deflection frequency	Horizontal: 30 to 92 kHz Vertical: 48 to 160 Hz
AC input voltage/current	100 to 240 V, 50 – 60 Hz, 1.7 – 1.0 A
Power consumption	Max. 120 W
Dimensions	406 × 432 × 420 mm (w/h/d) (16 × 17 1/8 × 16 5/8 inches)
Mass	Approx. 18.8 kg (41 lb 7 oz)
Supplied accessories	See page 6

Design and specifications are subject to change without notice.

TRINITRON® COLOR GRAPHIC DISPLAY

SONY®

MICROFILM

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC Leakage. Check leakage as described below.

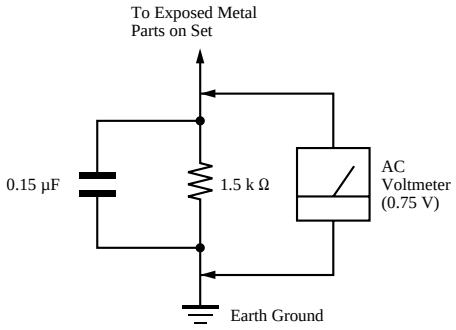


Fig. A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

WARNING!!
NEVER TURN ON THE POWER IN A CONDITION IN WHICH THE DEGAUSS COIL HAS BEEN REMOVED.

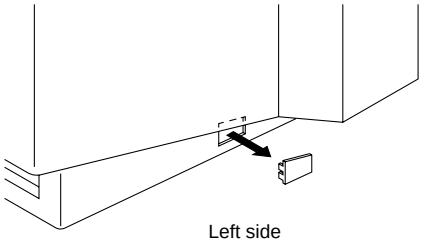
SAFETY-RELATED COMPONENT WARNING!!
COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

AVERTISSEMENT!!
NE JAMAIS METTRE SOUS TENSION QUAND LA BOBINE DE DEMAGNETISATION EST ENLEVÉE.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!
LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SONT CRITIQUES POUR LA SÉCURITÉ. NE LES REMPLACER QUE PAR UNE PIÈCE PORTANT LE NUMÉRO SPECIFIÉ. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

CAUTION ON DAS (ECS) CONNECTOR

- The connector for DAS (ECS) adjustment is provided inside the cover shown below. Be careful with an electrical shock when connecting the connector with the power supplied. Also, return the removed cover to the home position.



Left side

POWER SAVING FUNCTION

This monitor is capable of three states of reduced power consumption. By sensing the absence of video signals and one or both sync signals coming from the host computer, it will reduce power consumption as follows.

Power consumption state	Power consumption	Recovery time	⏻ power indicator
1 Normal operation	≤120 W	–	Green on
2 Standby (1st state)	≤85 W	Approx. 1 sec.	Green and orange alternate
3 Suspend (2nd state)	≤15 W	Approx. 3 sec.	Green and orange alternate
4 Active-off (3rd state)	≤5 W	Approx. 15 sec.	Orange on
5 Power-off	0 W	–	Off

DIAGNOSIS

Failre	Power LED
+B failure	Amber (0.5 sec) → Off (0.5 sec)
Horizontal / Vertical Deflection failure, Thermal protector	Amber (1.5 sec) → Off (0.5 sec)
ABL protector	Amber (0.5 sec) → Off (1.5 sec)
HV failure	Amber (0.25 sec) → Off (0.5 sec) → Amber (0.25 sec) → Off (1.25 sec)
Aging / Self Test	Amber (0.5 sec) → Off (0.5 sec) → Green (0.5 sec) → Off (0.5 sec)

Aging Mode (Video Aging) : During Power Save, press “MENU” key for longer than 2 second.
Self Test (OSD Color Bar) : During Power Save, press “CONTRAST” + (↑) key for longer than 2 second.
Reliability Check Mode : During Power Save, press “CONTRAST”– (↓) key for longer than 2 second.

TIMING SPECIFICATION

MODE AT PRODUCTION	MODE 1	MODE 2
RESOLUTION	1280 X 960	1280 X 1024
CLOCK	148.500 MHz	135.000 MHz
— HORIZONTAL —		
H-FREQ	85.938 kHz	79.976 kHz
	usec	usec
H. TOTAL	11.636	12.504
H. BLK	3.017	3.022
H. FP	0.431	0.119
H. SYNC	1.077	1.067
H. BP	1.508	1.837
H. ACTIV	8.620	9.481
— VERTICAL —		
V. FREQ(Hz)	85.002 Hz	75.025 Hz
	lines	lines
V. TOTAL	1011	1066
V. BLK	51	42
V. FP	1	1
V. SYNC	3	3
V. BP	47	38
V. ACTIV	960	1024
— SYNC —		
INT(G)	NO	NO
EXT(H/V)/POLARITY	YES P/P	YES P/P
EXT(CS)/POLARITY	NO	NO
INT/NON INT	NON INT	NON INT

97.7.14 VER.

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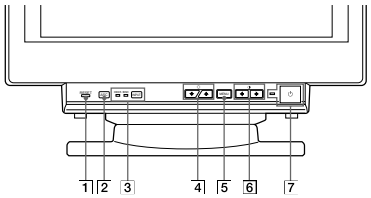
SECTION 1
GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

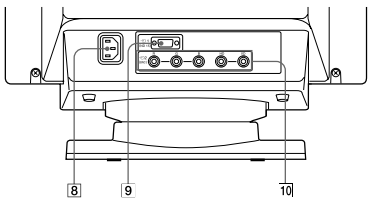
Identifying Parts and Controls

See the pages in parentheses for further details.

Front



Rear



1 **RESET (reset) button (page 17)**
Resets the adjustments to the factory settings.

2 **ASC (auto sizing and centering) button (page 7)**
Automatically adjusts the size and centering of the images.

3 **INPUT (input) button and HD15/BNC indicators (page 8)**
Selects the HD15 or 5BNC video input signal. Each time you press this button, the input signal and corresponding indicator alternate.

4 ☼ **(brightness) (🡻/🡹) buttons (pages 8 – 17)**
Adjust the picture brightness.

Function as the (🡻/🡹) buttons when adjusting other items.

5 **MENU (menu) button (pages 8, 10 -17)**
Displays the MENU OSD.

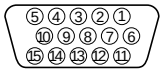
6 ◑ **(contrast) (🡸/🡺) buttons (pages 8 – 17)**
Adjust the contrast.

Function as the (🡸/🡺) buttons when adjusting other items.

7 ⏻ **(power) switch and indicator (pages 19, 22)**
Turns the monitor on or off.
The indicator lights up in green when the monitor is turned on, and lights up in orange when the monitor is in power saving mode.

8 **AC IN connector**
Provides AC power to the monitor.

9 **Video input 1 connector (HD15)**
Inputs RGB video signals (0.714 Vp-p, positive) and SYNC signals.



Pin No.	Signal	Pin No.	Signal
1	Red	8	Blue Ground
2	Green (Composite Sync on Green)	9	DDC + 5V*
		10	Ground
		11	Ground
3	Blue	12	Bi-Directional Data (SDA)*
4	Ground		
5	DDC Ground*	13	H. Sync
6	Red Ground	14	V. Sync
7	Green Ground	15	Data Clock(SCL)*

* Display Data Channel (DDC) Standard of VESA

10 **Video input 2 connector (5 BNC)**
Inputs RGB video signals (0.714 Vp-p, positive) and SYNC signals.

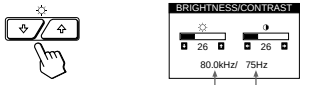
Before adjusting

- Connect the monitor and the computer, and turn them on.
- Select "🅰 LANG" in the MENU OSD, then select "ENGLISH" (English) (see page 17).

Adjusting the Picture Brightness

Once the setting is adjusted, it will be stored in memory for all input signals received.

1 Press the ☼ (brightness) 🡻/🡹 buttons.
The BRIGHTNESS/CONTRAST OSD appears.



2 Press the ☼🡻/🡹 buttons again to adjust the picture brightness.

🡹 . . . for more brightness
🡻 . . . for less brightness

The OSD automatically disappears after about 3 seconds.

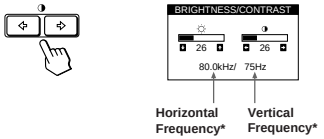
To reset, press the RESET button while the OSD is on. The brightness and contrast are both reset to the factory settings.

* The horizontal and vertical frequencies for the received input signal appear in the BRIGHTNESS/CONTRAST OSD.

Adjusting the Picture Contrast

Once the setting is adjusted, it will be stored in memory for all input signals received.

1 Press the ◑ (contrast) 🡸/🡺 buttons.
The BRIGHTNESS/CONTRAST OSD appears.



2 Press the ◑🡸/🡺 buttons again to adjust the picture contrast.

🡺 . . . for more contrast
🡸 . . . for less contrast

The OSD automatically disappears after about 3 seconds.

To reset, press the RESET button while the OSD is on. The brightness and contrast are both reset to the factory settings.

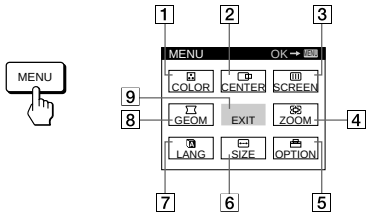
* The horizontal and vertical frequencies for the received input signal appear in the BRIGHTNESS/CONTRAST OSD.

Introducing the On-screen Display System

Most adjustments are made using the MENU OSD.

MENU OSD

Press the MENU button to display the MENU OSD.
This MENU OSD contains links to the other OSDs described below.



1 **COLOR**
Displays the COLOR OSD for adjusting the color temperature.

2 **CENTER**
Displays the CENTER OSD for adjusting the centering of the picture.

3 **SCREEN**
Displays the SCREEN OSD for adjusting the vertical and horizontal convergence, etc.

4 **ZOOM**
Displays the ZOOM OSD for enlarging and reducing the picture.

5 **OPTION**
Displays the OPTION OSD for adjusting the OSD position and degaussing the screen, etc.

6 **SIZE**
Displays the SIZE OSD for adjusting the picture size.

7 **LANG**
Displays the LANGUAGE OSD for selecting the language.

8 **GEOM**
Displays the GEOMETRY OSD for adjusting the picture rotation and pincushion, etc.

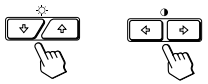
9 **EXIT**
Closes the MENU OSD.

Navigating the MENU on-screen display

Select a link using the ☼↓/↑ and ◑←/→ buttons in the MENU OSD.

1 Press the MENU button.
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑←/→ buttons to select a link.
The selected link turns yellow.



3 Press the MENU button.
The selected OSD appears.

If no buttons are pressed, the MENU OSD automatically disappears after about 10 seconds.
To close the MENU OSD, select "EXIT" and press the MENU button.

Adjusting the on-screen display settings

Select an item using the ☼↓/↑ buttons and adjust or select the setting of that item using the ◑←/→ buttons.

To select an item, press the ☼↓ or ↑ button.
The ▶ mark goes to the selected item and the item turns yellow.

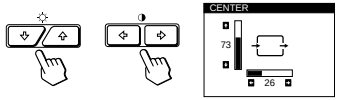
To adjust or set an item, press the ◑← or → button.
When adjusting an item, the bar length and the figure increase or decrease.
When setting an item, the ■ mark turns green.

Using the CENTER On-screen Display

The CENTER settings allow you to adjust the centering of the picture.
Once the setting is adjusted, it will be stored in memory for the current input signal.

1 Press the MENU button.
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑←/→ buttons to select " CENTER," and press the MENU button again.
The CENTER OSD appears.



3 For horizontal adjustment
Press the ◑←/→ buttons.

→ . . . to move the picture right
← . . . to move the picture left

For vertical adjustment
Press the ☼↓/↑ buttons.

↑ . . . to move the picture up
↓ . . . to move the picture down

The OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button again.

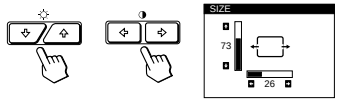
To reset, press the RESET button while the OSD is on.
The horizontal and vertical centerings are both reset to the factory settings.

Using the SIZE On-screen Display

The SIZE settings allow you to adjust the size of the picture.
Once the setting is adjusted, it will be stored in memory for the current input signal.

1 Press the MENU button.
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑←/→ buttons to select " SIZE," and press the MENU button again.
The SIZE OSD appears.



3 For horizontal adjustment
Press the ◑←/→ buttons.

→ . . . to increase picture size
← . . . to decrease picture size

For vertical adjustment
Press the ☼↓/↑ buttons.

↑ . . . to increase picture size
↓ . . . to decrease picture size

The OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button again.

To reset, press the RESET button while the OSD is on.
The horizontal and vertical sizes are both reset to the factory settings.

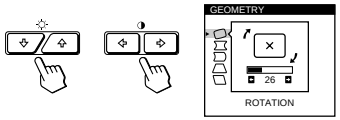
EN

Using the GEOM (Geometry) On-screen Display

The GEOM (geometry) settings allow you to adjust the shape and orientation of the picture.
Once the rotation is adjusted, it will be stored in memory for all input signals received. All other adjustments will be stored in memory for the current input signal.

1 Press the MENU button.
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑←/→ buttons to select " GEOM," and press the MENU button again.
The GEOMETRY OSD appears.



3 Press the ☼↓/↑ buttons to select the item you want to adjust.

Select	To
ROTATION	adjust the picture rotation
PINCUSHION	adjust the picture sides
PIN BALANCE	adjust the picture side balance
KEYSTONE	adjust the picture width
KEY BALANCE	adjust the picture shape balance

4 Press the ◑←/→ buttons to adjust the settings.

For	Press
ROTATION	→ . . . to rotate the picture clockwise
	← . . . to rotate the picture counterclockwise
PINCUSHION	→ . . . to expand the picture sides
	← . . . to contract the picture sides
PIN BALANCE	→ . . . to move the picture sides to the right
	← . . . to move the picture sides to the left
KEYSTONE	→ . . . to increase the picture width at the top
	← . . . to decrease the picture width at the top
KEY BALANCE	→ . . . to move the top of the picture to the right
	← . . . to move the top of the picture to the left

The OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button again.

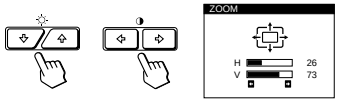
To reset, press the RESET button while the OSD is on.
The selected item is reset to the factory setting.

Using the ZOOM On-screen Display

The ZOOM settings allow you to enlarge or reduce the picture.
Once the setting is adjusted, it will be stored in memory for the current input signal.

1 Press the MENU button.
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑←/→ buttons to select " ZOOM," and press the MENU button again.
The ZOOM OSD appears.



3 Press the ◑←/→buttons to adjust the picture zoom.

→ . . . to enlarge the picture
← . . . to reduce the picture

The OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button again.

To reset, press the RESET button while the OSD is on.

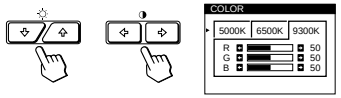
Note
The picture zoom adjustment will stop as soon as either the horizontal or vertical size reaches its maximum or minimum value.

Using the COLOR On-screen Display

You can change the monitor's color temperature. For example, you can change the colors of a picture on the screen to match the actual colors of the printed picture.
Once the setting is adjusted, it will be stored in memory for all input signals received.

1 Press the MENU button.
The MENU OSD appears.

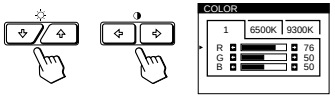
2 Press the ☼↓/↑ and ◑←/→ buttons to select " COLOR," and press the MENU button again.
The COLOR OSD appears.



3 Press the ◑←/→ buttons to select the color temperature.

There are three color temperature modes in the OSD.
The preset adjustments are:
5000K, 6500K, 9300K

Fine tunig the color temperature
Press the ☼↓/↑ buttons to select R (red), G (green), or B (blue) and adjust by pressing the ◑←/→ buttons.



The "5000K," "6500K" or "9300K" disappears and the new color settings are memorized for each of the three color modes.
The color temperature modes change as follows:
5000K→ 1, 6500K→ 2, 9300K→ 3

The OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button again.

To reset, press the RESET button while the OSD is on. The selected color temperature is reset to the factory settings.

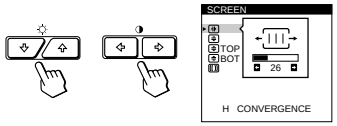
EN

Using the SCREEN On-screen Display

Adjust convergence settings to eliminate red or blue shadows that may appear around objects on the screen. Adjust the CANCEL MOIRE function to eliminate wavy or elliptical lines that may appear on the screen.
Once CANCEL MOIRE is adjusted, it will be stored in memory for the current input signal. All other adjustments will be stored in memory for all input signals received.

1 Press the MENU button.
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑←/→ buttons to select " SCREEN," and press the MENU button again.
The SCREEN OSD appears.



3 Press the ☼↓/↑ buttons to select the item you want to adjust.

Select	To
H CONVERGENCE	adjust the horizontal convergence
V CONVERGENCE	adjust the vertical convergence
TOP V CONVER TOP	adjust the screen's upper vertical convergence
BOT V CONVER BOTTOM	adjust the screen's lower vertical convergence
CANCEL MOIRE	eliminate elliptical or wavy lines on the screen
ADJ * MOIRE ADJUST	adjust the degree of moire cancellation

* CANCEL MOIRE must be "ON" for " ADJ (MOIRE ADJUST)" to appear on the screen.

4 Press the ◑←/→ buttons to adjust the settings.

For	Press
H CONVERGENCE	→ . . . to shift red shadows to the right and blue shadows to the left ← . . . to shift red shadows to the left and blue shadows to the right
V CONVERGENCE	→ . . . to shift red shadows up and blue shadows down ← . . . to shift red shadows down and blue shadows up
TOP V CONVER TOP	→ . . . to shift red shadows up and blue shadows down ← . . . to shift red shadows down and blue shadows up
BOT V CONVER BOTTOM	→ . . . to shift red shadows up and blue shadows down ← . . . to shift red shadows down and blue shadows up
CANCEL MOIRE	→ . . . to turn CANCEL MOIRE "ON" (OFF ON) ← . . . to turn CANCEL MOIRE "OFF" (OFF ON)
ADJ MOIRE ADJUST	→ . . . to increase the moire cancellation effect (50) ← . . . to decrease the moire cancellation effect (0)

The OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button again.

To reset, press the RESET button while the OSD is on.
The selected item is reset to the factory setting.

Using the OPTION On-screen Display

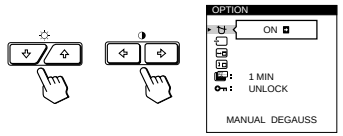
The OPTION OSD allows you to manually degauss the screen and adjust settings such as the OSD position and power saving delay time. It also allows you to lock the controls.

Degaussing the screen

The monitor screen is automatically degaussed (demagnetized) when the power is turned on.
You can also manually degauss the monitor.

1 Press the MENU button.
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑←/→ buttons to select " OPTION," and press the MENU button again.
The OPTION OSD appears.



3 Press the ☼↓/↑ buttons to select " (MANUAL DEGAUSS)."

4 Press the ◑ → button.
The screen is degaussed for about 2 seconds.

If you need to degauss the screen a second time, wait for at least 20 minutes before repeating the steps above.

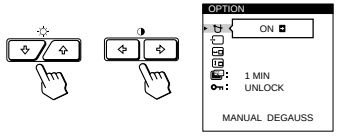
The OPTION OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button again.

Changing the on-screen display position

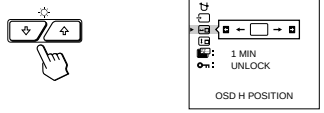
You can change the OSD position (for example, when you want to adjust the picture behind the OSD).

1 Press the MENU button.
The MENU OSD appears.

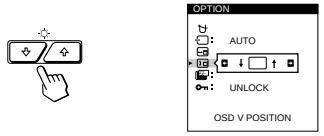
2 Press the ☼↓/↑ and ◑←/→ buttons to select " OPTION," and press the MENU button again.
The OPTION OSD appears.



3 Press the ☼↓/↑ buttons to select " (OSD H POSITION)" or " (OSD V POSITION)."
Select " (OSD H POSITION)" to adjust the horizontal position.



Select " (OSD V POSITION)" to adjust the vertical position.



4 Press the ◑←/→ buttons to move the OSD to the desired position.

The OPTION OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button again.

To reset, press the RESET button while the OSD is on.

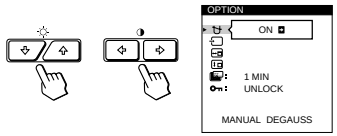
EN

Setting the power saving delay time

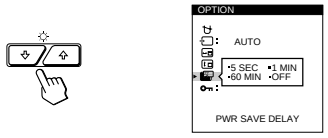
You can set the delay time before the monitor enters the power saving mode. See page 19 for more information on this monitor's power saving capabilities.

1 Press the MENU button.
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑←/→ buttons to select " OPTION," and press the MENU button again.
The OPTION OSD appears.



3 Press the ☼↓/↑ buttons to select " (PWR SAVE DELAY)."



4 Press the ◑←/→ buttons to select the desired time.

When PWR SAVE DELAY is set to "OFF," the monitor does not go into power saving mode.

The OPTION OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button again.

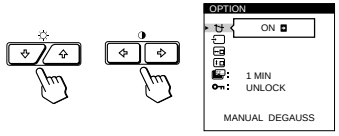
To reset, press the RESET button while the OSD is on.

Locking the controls

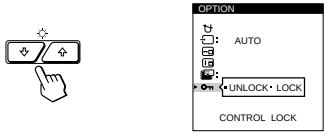
The control lock function disables all of the buttons on the front panel except the ⏻ (power) switch, MENU and INPUT buttons.

1 Press the MENU button.
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑←/→ buttons to select " OPTION," and press the MENU button again.
The OPTION OSD appears.



3 Press the ☼↓/↑ buttons to select " (CONTROL LOCK)."



4 Press the ◑←/→ buttons to select "LOCK."

The OPTION OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button again.

Once you select "LOCK," you cannot select any items except "EXIT" and " OPTION" in the MENU OSD.
If you press any button other than the ⏻ (power) switch, MENU and INPUT buttons, the mark appears on the screen.

To cancel the control lock

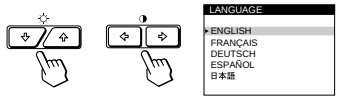
Repeat steps 1 through 3 above and press the ◑←/→ buttons to select "UNLOCK."

Using the LANG (Language) On-screen Display

English, French, German, Spanish and Japanese versions of the OSDs are available.

1 Press the MENU button.
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑←/→ buttons to select " LANG," and press the MENU button again.
The LANGUAGE OSD appears.



3 Press the ☼↓/↑ buttons to select the desired language.

ENGLISH: English, FRANÇAIS: French,
DEUTSCH: German, ESPAÑOL: Spanish,
or 日本語 : Japanese.

The OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button again.

To reset to English, press the RESET button while the OSD is on.

Resetting the Adjustments

Resetting an adjustment item

1 Press the MENU, ☼↓/↑ and ◑←/→buttons to select the OSD containing the item you want to reset.

2 Press the ☼↓/↑ buttons to select the item you want to reset.

3 Press the RESET button.

Resetting all of the adjustment data for the current input signal

When there is no OSD displayed, press the RESET button.
All of the adjustments data for the current input signal is reset to the factory settings.
Note that adjustment data not affected by changes in input signal (OSD language, OSD position, input signal selection, power saving delay time and the control lock function) is not reset to the factory settings.

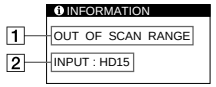
Resetting all of the adjustment data for all input signals

Press and hold the RESET button for more than two seconds.
All of the adjustment data, including the brightness and contrast, is reset to the factory settings.

EN

Warning Messages

If there is something wrong with the input signal, one of the following messages appears.
The message disappears after about 30 seconds.



1 The input signal condition

"OUT OF SCAN RANGE" indicates that the input signal is not supported by the monitor's specifications.

"NO INPUT SIGNAL" indicates that no signal is input, or the input signal from the selected input connector is not received.

2 The selected input connector

Indicates which input connector is receiving the wrong signal. If there is something wrong with the signal from both input connectors, "HD15" and "BNC" are displayed alternately.

To solve these problems, see "Troubleshooting" below.

Troubleshooting

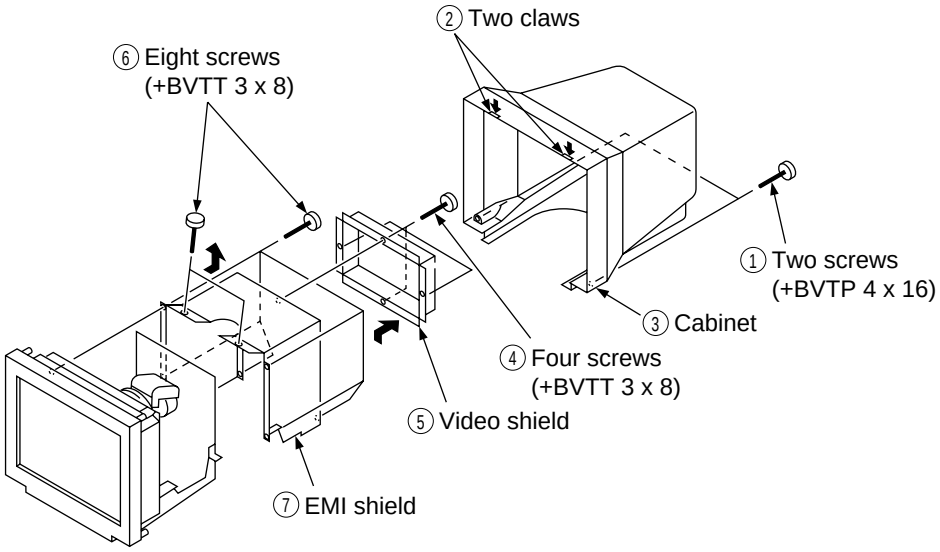
This section may help you isolate the cause of a problem and as a result, eliminate the need to contact technical support.

Symptom	Check these items
No picture	
If the ⏻ indicator is not lit	• Check that the power cord is properly connected. • Check that the ⏻ (power) switch is in the "on" position.
If the "NO INPUT SIGNAL" message appears on the screen, or if the ⏻ indicator is either orange or alternating between green and orange	• Try pressing any key on the computer keyboard. • Check that your computer power switch is in the "on" position. • Check that the input select setting is correct. • Check that the video signal cable is properly connected and all plugs are firmly seated in their sockets. • Check that the 5 BNCs are connected in the correct order (from left to right: Red–Green–Blue–HD–VD) (page 6). • Ensure that no pins are bent or pushed in the HD15 video input connector. • Check that the video board is completely seated in the proper bus slot.
If the "OUT OF SCAN RANGE" message appears on the screen	• Check that the video frequency range is within that specified for the monitor. (Horizontal: 30 – 92 kHz, Vertical: 48 – 160 Hz) Refer to your computer's instruction manual to adjust the video frequency range. • If you are using a video signal cable adapter, check that it is correct.
If no message is displayed and the ⏻ indicator is green or flashing orange	• See "Self-diagnosis Function" (page 22).
If using a Macintosh system	• Check that the Macintosh adapter and the video signal cable are properly connected (page 6).
If using Windows® 95	• If you cannot find "GDM-200PS" among the Sony monitors in the Windows 95 monitor selection screen, select the DDC standard monitor or install the Windows 95 Monitor Information Disk (page 7). The DDC standard does not apply to the 5 BNC connectors. If you use the DDC standard, connect the computer to the HD15 connector with the supplied video signal cable.
Picture is scrambled	• Check your graphics board manual for the proper monitor setting. • Check this manual and confirm that the graphics mode and the frequency you are trying to operate at is supported. Even if the frequency is within the proper range, some video boards may have a sync pulse that is too narrow for the monitor to sync correctly.

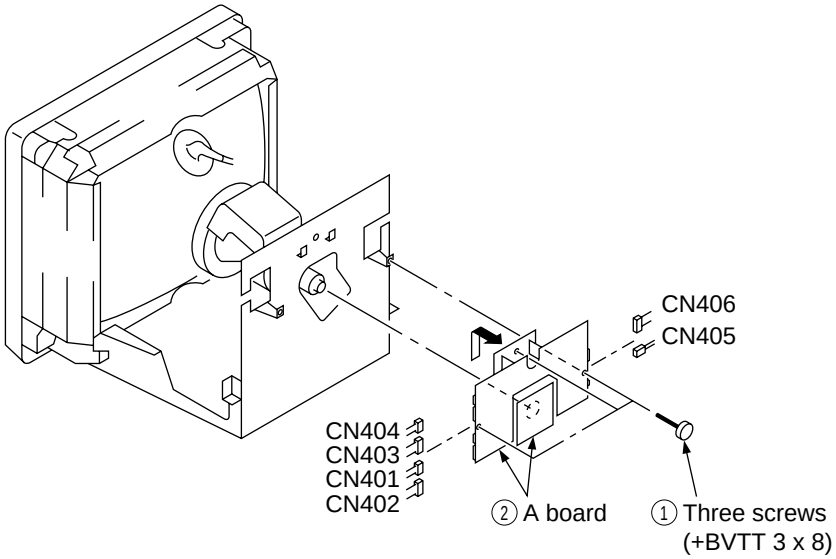
Symptom	Check these items
Color is not uniform	• Degauss the monitor (page 15). If you place equipment which generates a magnetic field, such as a loudspeaker, near the monitor, or you change the direction of the monitor, color may lose uniformity. The degauss function demagnetizes the metal frame of the CRT to obtain a neutral field for uniform color reproduction. If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result.
You cannot adjust the monitor with the buttons on the front panel	• If the control lock function is set to on, set it to off using the OPTION OSD (page 16).
White does not look white	• Adjust the color temperature (page 13). • Check that the 5 BNCs are connected in the correct order (from left to right: Red–Green–Blue–HD–VD) (page 6).
Screen image is not centered or sized properly	• Adjust the size or centering (page 11). • Some video modes do not fill the screen to the edges. This problem tends to occur with certain video boards.
Edges of the image are curved	• Adjust the geometry (page 12).
White lines show red or blue shadows at edges	• Adjust the convergence (page 14).
Picture is fuzzy	• Adjust the contrast and brightness (page 9). • Degauss the monitor (page 15). If you place equipment which generates a magnetic field, such as a loudspeaker, near the monitor, or you change the direction of the monitor, color may lose uniformity. The degauss function demagnetizes the metal frame of the CRT to obtain a neutral field for uniform color reproduction. If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result. • If red or blue shadows appear along the edges of images, adjust the convergence (page 14). • If the moire is cancelled, the picture may become fuzzy. Decrease the moire cancellation effect (page 14).
Picture bounces or has wavy oscillations	• Isolate and eliminate any potential sources of electric or magnetic fields. Common causes for this symptom are electric fans, fluorescent lighting or laser printers. • If you have another monitor close to this monitor, increase the distance between them to reduce the interference. • Try plugging the monitor into a different AC outlet, preferably on a different circuit. • Try the monitor on a different computer in a different room.
Picture is flickering	• Set the refresh rate on the computer to obtain the best possible picture by referring to your computer's manual.
Picture appears to be ghosting	• Eliminate the use of video cable extensions and/or video switch boxes if this symptom occurs. Excessive cable length or a weak connection can produce this symptom.
Wavy or elliptical (moire) pattern is visible	• Cancel the moire (page 14). The moire may be modified depending on the connected computer. • Due to the relationship between resolution, monitor dot pitch and the pitch of some image patterns, certain screen backgrounds sometimes show moire. Change your desktop pattern.
Two fine horizontal lines (wires) are visible	• These wires stabilize the vertically striped aperture grille (page 19). This aperture grille allows more light to pass through to the screen giving the Trinitron CRT more color and brightness.
Hum is heard right after the power is turned on	• When the power is turned on, the auto-degauss cycle is activated. While the auto-degauss cycle is activated, a hum may be heard. The same hum is heard when the monitor is manually degaussed. This is not a malfunction.

SECTION 2
DISASSEMBLY

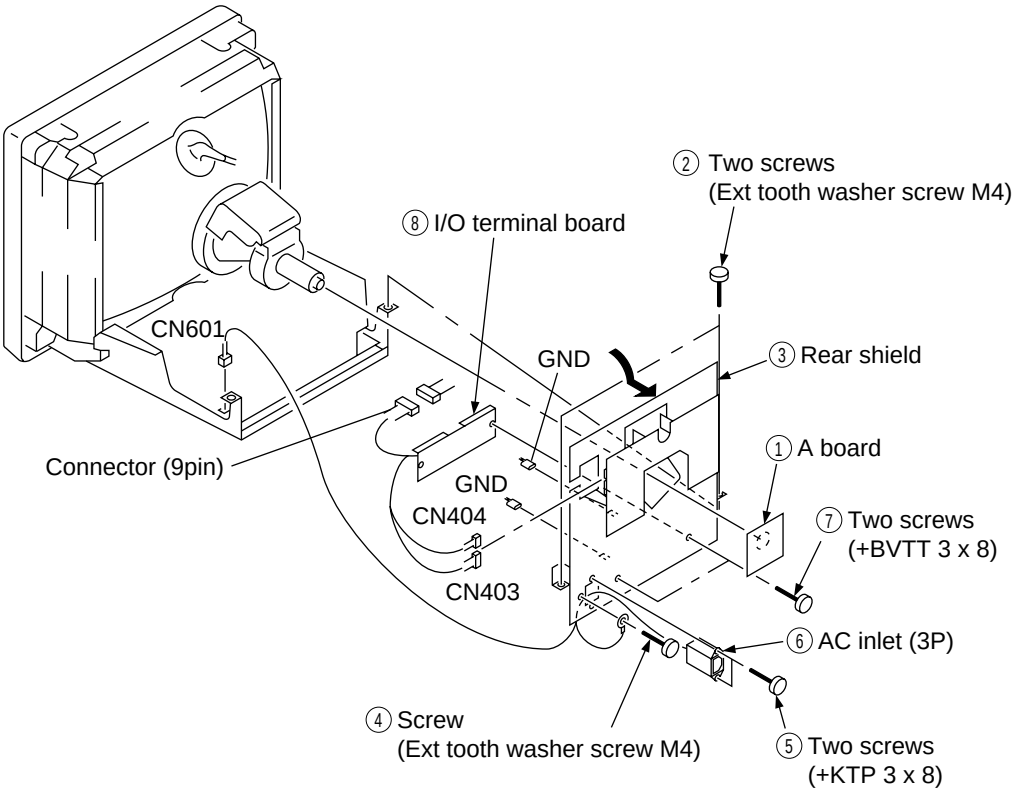
2-1. CABINET REMOVAL



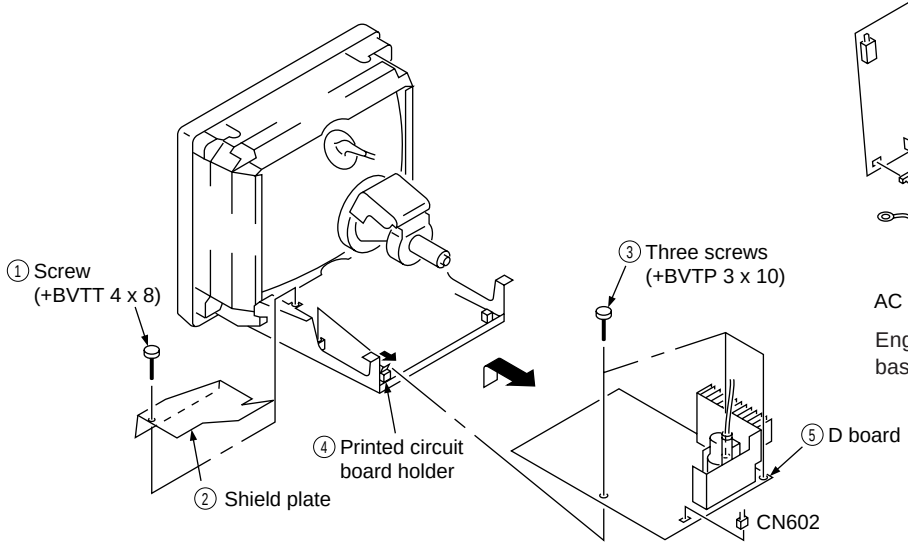
2-2. A BOARD REMOVAL



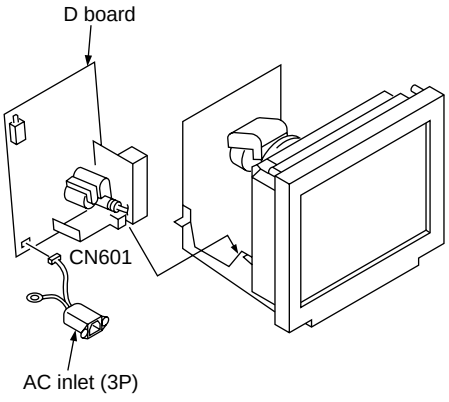
2-3. AC INLET AND I/O TERMINAL BOARD REMOVAL



2-4. D BOARD REMOVAL

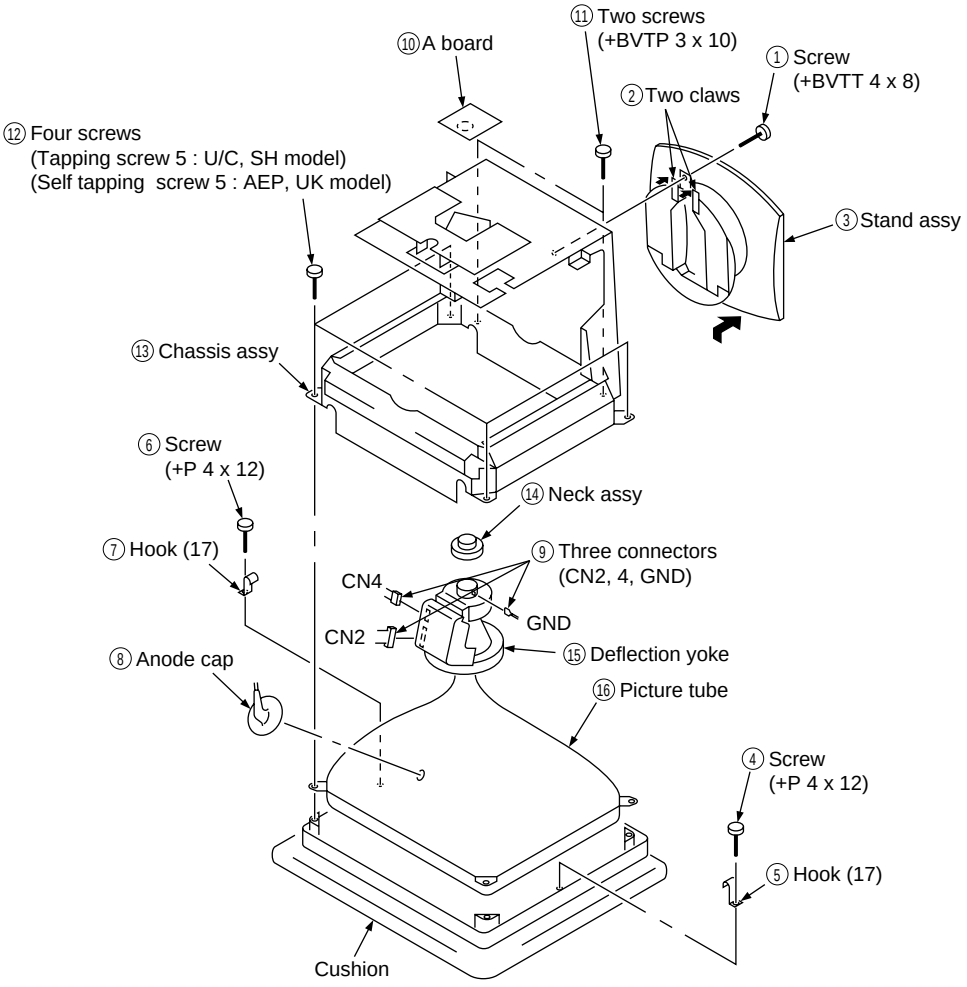


2-5. SERVICE POSITION



Engage a slit in D board heat sink with the base chassis to fix.

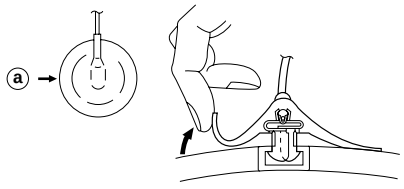
2-6. PICTURE TUBE REMOVAL



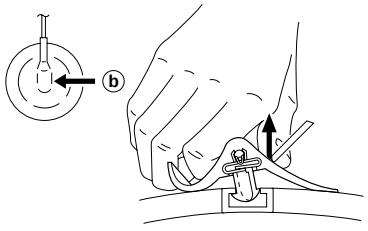
• REMOVAL OF ANODE-CAP

NOTE: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon painted on the CRT, after removing the anode.

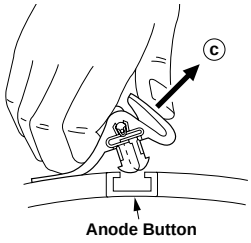
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



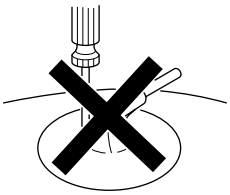
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.

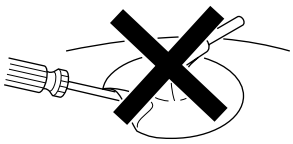


③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with shartp shaped material!
② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.
③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SAFETY RELATED ADJUSTMENT

When replacing or repairing the shown below table, the following operational checks must be performed as a safety precaution against X-rays emissions from the unit.

	Part Replaced (⋈)
HV ADJ	RV901

	Part Replaced (◪)
HV Regulator Circuit	D board IC901, R903, R922, T901 • Mounted D board
HV HOLD DOWN Circuit	D board D913, D916, C923, R920, R927, T901 • Mounted D board
Beam Current Protector Circuit	D board IC901, D902, D918, D919, R923, R928, R932, R933, R934, R942, R944, R945, R947, R948, R951, T901 • Mounted D board

* Confirm one minute later turning on the power.

• HV Protector Circuit Check

(1) Confirm that the voltage between cathode of D913 and GND is more than 17.5 V DC.

(2) Using external DC Power Supply, apply the voltage shown below between cathode of D913 and GND, and confirm that the HV HOLD DOWN circuite works. (TV Rester disappears)

Standard voltage: Less than 23.40 V DC

• Beam Current Protector Circuite Check

(1) Hardware logic circuit

- Turn the POWER SW on, and check that the RASTER fades in.
- Connect a variable resistor (20 kΩ or more) and an ammeter in series between FBT pin ⑪ and – 15 V line (– side of C637). Decrease gradually the resistance of the variable resistor from maximum to minimum, and confirm that the Beam Current Protector Circuite works (TV Rester disappears). The current must be within the range shown below.

  Standard current: Less than 1.09 mA

(2) Software logic circuit

- Turn the POWER SW on, and check that the RASTER fades in.
- Short between + of C639 and GND.
- Connect a variable resistor (20 kΩ or more) and an ammeter in series between FBT pin ⑪ and – 15 V line (– side of C637). Decrease gradually the resistance of the variable resistor form maximum to minimum, and confirm that the Beam Current Protector Circuite works (TV Raster disappears). The current must be within the range shown below.

  Standard current: Less than 1.14 mA

SECTION 4
ADJUSTMENTS

• Landing Rough Adjustment

1. Enter the full white signal. (or the full black dots signal).
2. Adjust the contrast to the maximum.
3. Make the screen monogreen.

Note: Off the outputs from R ch and B ch of SG.

4. Reverse the DY, and adjust coarsely the purity magnet so that a green raster positions in the center of screen.
5. Adjust the tilt of DY, and fix lightly with a clamp.

Note: "TILT" = 128

• Landing Fine Adjustment

1. Put the set inside the Helmholtz coil.
2. Input the single green signal and set the CONT control to MAX.

<Landing adjsutment luminance>

Landing adjsutment after 2 hours of aging by Landing adjustmet luminance.

- Landing ajdustment luminance
  : 1/2 of Landing between COOL and HOT
  (Reference: IK = 200 µA)
- Max luminance
  : 120 cg/m² IK = 650 µA

3. Demagnetize the metal part of the chassis with the hand degausser and coil degausser, and the CRT surface with the hand degausser.
   Input AC 230V to AC IN, turn on and off the power to perform auto degaussing. (Perform auto degaussing by setting "MON CON REG2"=152. Return to the original value after use.)
   Demagnetize the CRT surface with the hand degausser again.

(1) Adjust in a non-magnetic field. BV=55uT (SH Model).
(2) If adjusting in a magnetic fields, add the shift from the non-magnetic field in your estimation.

4. Attach the wobbling coil to the designated part of the CRT neck.
5. Pull the TLH plate nooked on stopper.
6. Attach the sensor of the landing adjustment unit on the CRT surface.
7. With landing checker adjsut DY position, punity, DY tilt, DY center and landing of hte 4 corners. Purity Adjsutment use 2-pole Mg on DY side.
8. Fasten DY with screw.

Note: Torque 22 ±2kg·cm (2.2 ± 0.2 Nm)
Perform auto degaussing.

<Specifications>

Adjust so that the green is within the specification given right.
4 corner adjust target : within ± 1

(µm)

0 ± 5	0 ± 7.5	0 ± 5
0 ± 5	0 ± 5	0 ± 5
0 ± 5	0 ± 7.5	0 ± 5

The red and blue must be within the specification given right with respect to the green.

(µm)

± 7	± 7	± 7
± 7	± 5	± 7
± 7	± 7	± 7

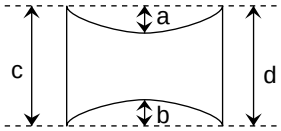
A difference between red and blue must be within the specification given right.

(µm)

10	10	10
10	7	10
10	10	10

* Adjustment and measurement should be made at the points one inch inside the fluorescent screen.

Fixing DY with wedges.

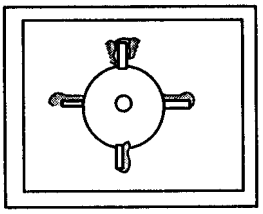


"a" and "b" must be equal, and "c" and "d" must be almost equal.

9. Adjust vertical swing with vertical pins, and also adjust horizontal swing so that horizontal keystone and vertical tilt are optimum, then fix with four wedges.
   (When fixing DY with wedges, insert wedges completely so that the DY does not shake.)

Note:
(1) Do not paste more than 2 magnets to one corner.
(2) Paste within 80 to 100 mm from the DY on the diagonal line of the magnet.

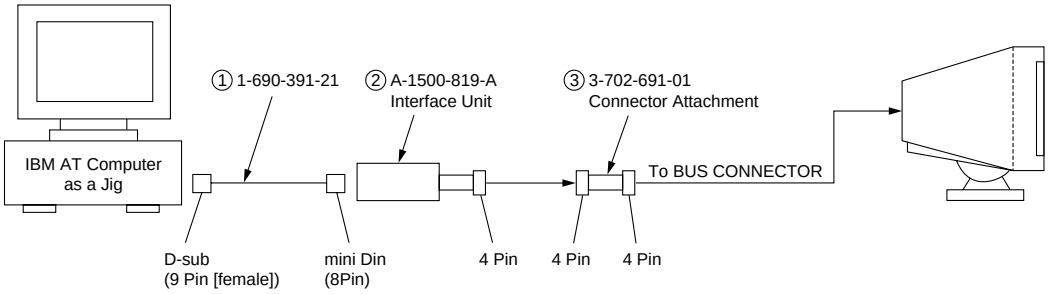
<How to drive in wedges>



Apply a locking agent to the upper wedges only.
In such a case, apply agent so that it enters both sides of wedge and also inside the DY.

10. Check the landing of each corner, and if they do not satisfy the specification, paste a Disk-Mg onto the funnel and adjust.
11. If using the magnet, be sure to demagnetize with the hand degausser and check.
12. Remove the sensor and wobbling coil.
13. Check that the DY is not tilting, and fix the purity Mg with a white pen.

Connect the communication cable of the computer to the connector located on the D board on the monitor. Run the service software and then follow the instruction.



*The parts above (① ~ ③) are necessary for DAS adjustment.

- **Convergence Rough Adjustment**

(1) Receive an image of the white crosshatch signals (white lines on black).
(2) Place the protrusions of the 6-fold poles magnet attached to the CRT neck upon each other. (Fig. 1)
(3) Make rough adjustment of the H and V direction convergence by using 4-fold poles magnet.

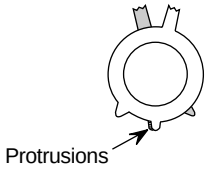


Fig. 1

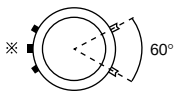
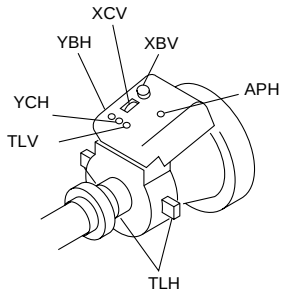
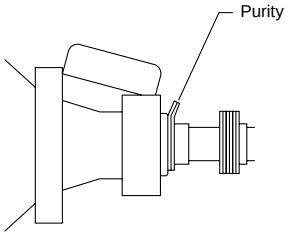
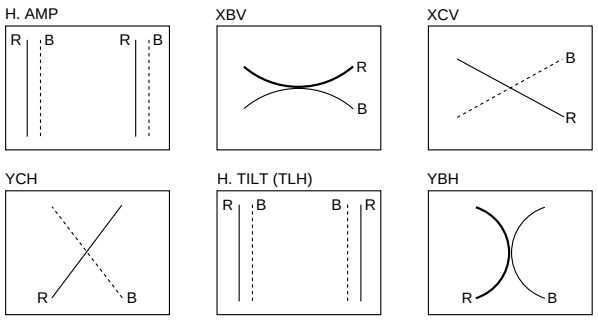


Fig. 3

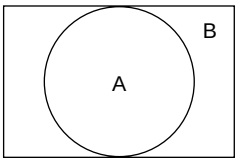
* Set so that the protruding parts of the 2 magnet rings agree with each other.







- **Convergence Specification**

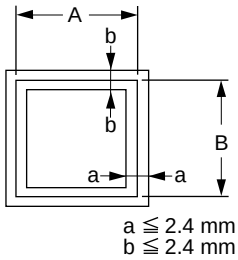


MODE	$f_H \geqq 60$ kHz	$f_H < 60$ kHz
A	0.24 mm	0.24 mm
B	0.24 mm	0.32 mm
C	0.32 mm	0.36 mm

- **White Balance Adjustment Specification**

(1) 9300K
x = 0.283 ± 0.005
y = 0.298 ± 0.005
(All White)
(2) 6500K
x = 0.313 ± 0.005
y = 0.329 ± 0.005
(All White)

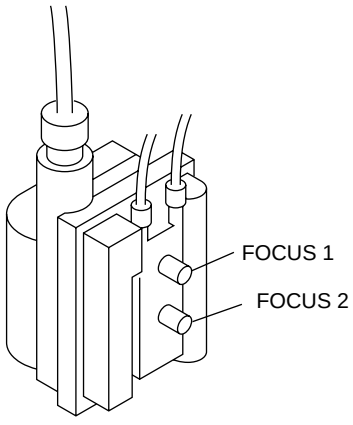
- **Vertical and Horizontal Position and Size Specification**



	4 : 3	5 : 4
A	312 mm	293 mm
B	234 mm	234 mm

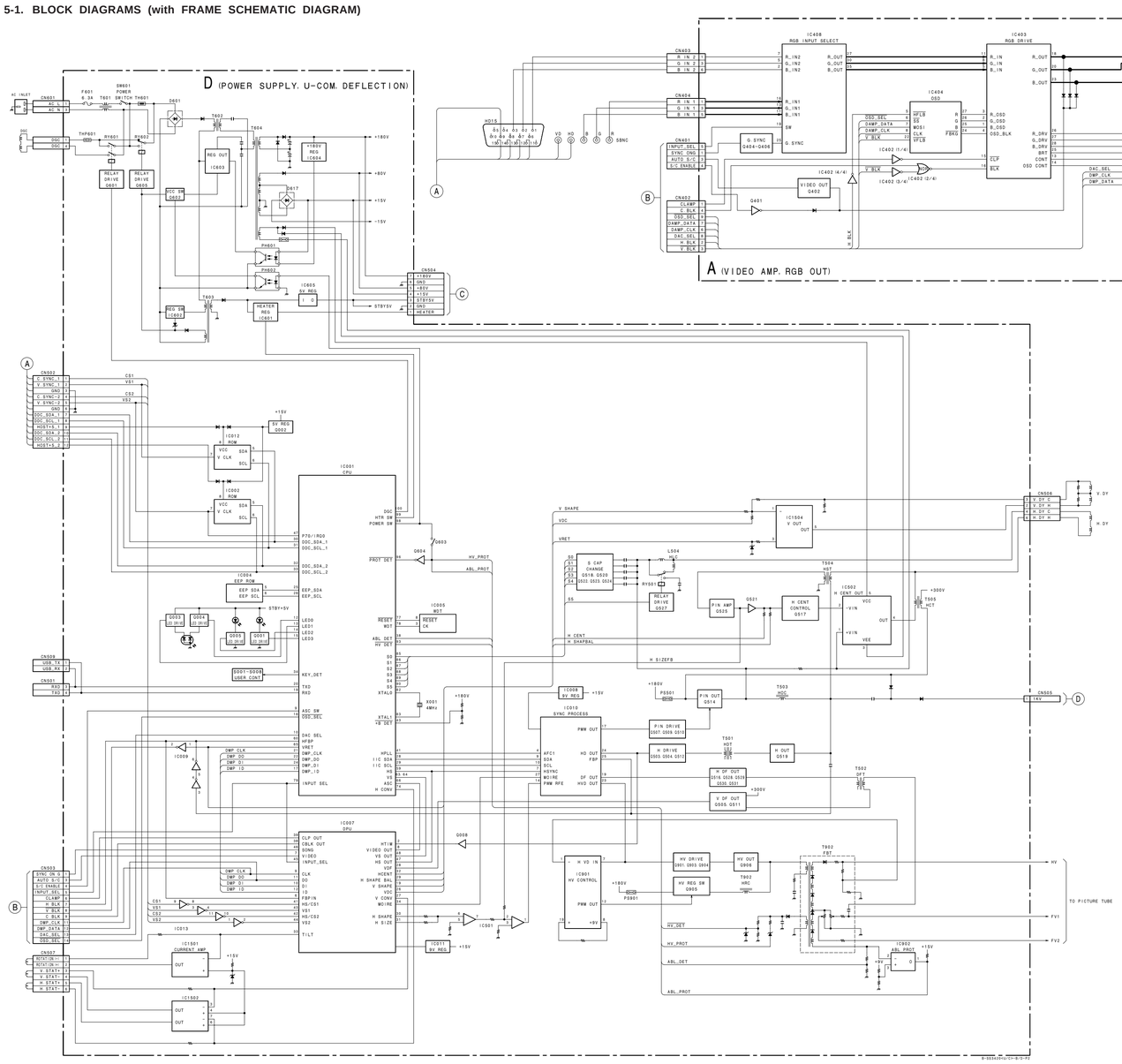
- **Focus adjustment**

Adjust the focus volume 1 and 2 for the optimum focus.
Standard: HMC, VMC ± 0.1 mm (In the center of screen)

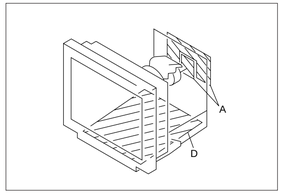


SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAMS (with FRAME SCHEMATIC DIAGRAM)



5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in µF unless otherwise noted. (pF: µµF) Capacitors without voltage indication are all 50 V.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4 W (CHIP : 1/10 W)

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-ground.
- : earth-chassis.
- The components identified by **H** in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments indicated. (See page 3-1)
- When replacing the part in below table, be sure to perform the related adjustment.

	Part replaced (**H**)
HV ADJ	RV901

	Part replaced (◪)	
HV Regulator Circuit	D board	IC901, R903, R922, T901 • Mounted D board
HV HOLD DOWN Circuit	D board	D913, D916, C923, R920, R927, T901 • Mounted D board
Beam Current Protector Circuit	D board	IC901, D902, D918, D919, R923, R928, R932, R933, R934, R942, R944, R945, R947, R948, R951, T901 • Mounted D board

- All voltages are in V.
- Readings are taken with a 10 M digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ✻ : Can not be measured.
- Circled numbers are waveform references.
- ▬▬ : B + bus.
- ▬ ▬ : B – bus.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Terminal name of semiconductors in silk screen printed circuit (↗)

	Device	Printed symbol	Terminal name	Circuit
①	Transistor	T	Collector / Base / Emitter	
②	Transistor	▬	Collector / Base / Emitter	
③	Diode	⊓	Cathode / Anode	
④	Diode	T	Cathode / Anode (NC)	
⑤	Diode	▬	Cathode / Anode (NC)	
⑥	Diode	T	Common / Anode Cathode	
⑦	Diode	▬	Common / Anode Cathode	
⑧	Diode	T	Common / Anode Anode	
⑨	Diode	▬	Common / Anode Anode	
⑩	Diode	T	Common / Cathode Cathode	
⑪	Diode	▬	Common / Cathode Cathode	
⑫	Diode		Anode Cathode / Anode Cathode / Anode	
⑬	Transistor (FET)	▌	Drain / Source / Gate	
⑭	Transistor (FET)	⊢	Drain / Source / Gate	
⑮	Transistor (FET)	▌	□ Source / □ Drain / □ Gate	
⑯	Transistor	▌	□ Emitter / □ Collector / □ Base	
–	Discrete semiconductor			

(Chip semiconductors that are not actually used are included.)

ver.1.5

(1) Schematic Diagram of D Board

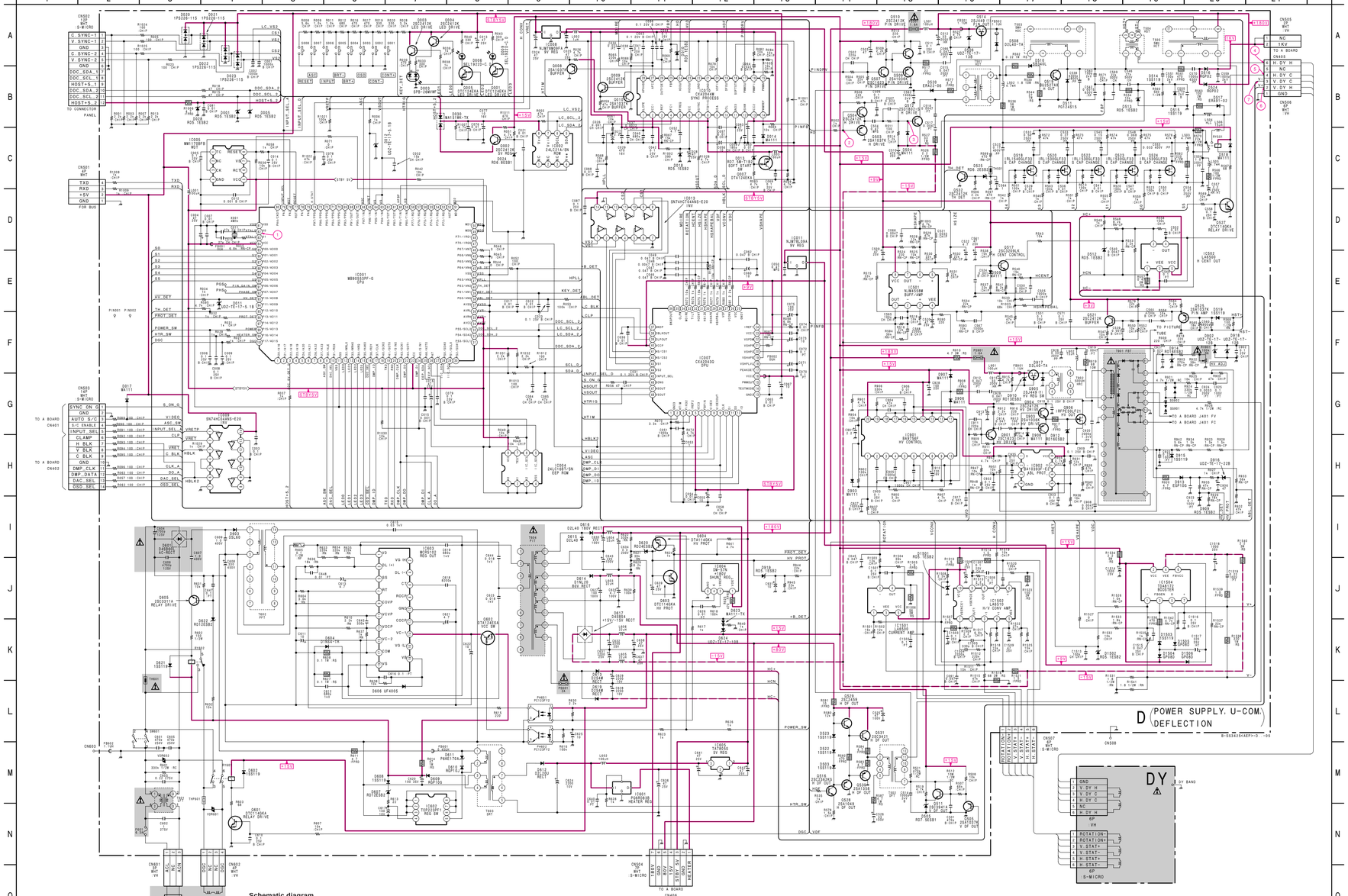
• D BOARD VOLTAGE LIST

Ref.	Pin No.	Voltage [V]
IC002	5	0.5
	6	3.5
	7	0
IC004	5	4.9
	6	4.9
	7	0
IC005	1	0.4
	3	0
	7	1.5
	8	4.9
IC009	1	−0.5
	2	0
	3	0
	4	4.4
	5	4.4
	6	0.5
	14	4.9
IC010	1	3.8
	3	*
	4	2.6
	5	2.8
	6	5.0
	7	0.3
	9	4.9
	10	4.9
	12	4.4
	14	4.3
	15	4.3
	16	5.0
	17	2.0
	18	−0.2
	19	5.2
	20	8.6
	23	1.2
	24	2.3
	25	0
	26	3.6
	27	4
	28	4.5
IC012	5	0.6
	6	3.5
	7	4.0
IC013	1	0
	2	5.0
	3	4.0
	4	0
	8	0.3
	9	3.8
	10	4.9
	11	0
IC501	1	4.3
	2	0
	3	0
	5	0
	6	0
	7	−9.8
IC502	1	76.1
	2	76.2
	4	75.6
IC601	IN	7.5
	OUT	6.2
	SW	4.9
IC602	4	5.8
		148.0
IC603	1	147.5
	3	3.9
	5	4.5
	6	2.2
	7	3.8
	9	0
	11	0
	12	0
	13	0
	14	16.3
	15	10.6
	17	0
	18	88.5
	19	78.2
IC604	1	179.8
	3	2.5
	6	12.6
IC901	1	9.0
	2	5.3
	4	0
	6	1.1
	7	1.1
	8	9.0
	12	0
	15	0.2
	16	7.8
	19	8.9
IC902	1	0.2
	2	6.9
	3	0
	5	0
	6	6.7
	7	0.2
IC1501	1	2.8
	2	2.8
	4	−1.3
IC1502	1	0.1
	2	0.1
	3	3.5
	4	3.5
	6	1.8
	7	1.8
	8	0.6
	9	0.6
IC1504	1	1.1
	3	−13.7
	5	0.1
	6	13.5
	7	1.1
PH601	1	14.7
	2	13.6
	3	0
	4	3.8
PH602	1	1.0
	2	1.0

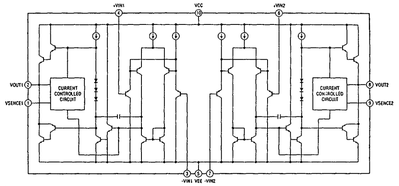
Ref.	Pin No.	Voltage [V]
	3	0
	4	2.6
Q001	B	0
	C	3.7
Q002	B	5.5
	C	14.6
	E	4.8
Q003	B	0
	E	0.2
Q004	B	4.9
	E	4.2
Q005	B	4.9
	C	0.1
Q007	B	7.2
	C	0
Q008	B	2.3
	E	2.8
Q503	B	2.3
	E	2.3
Q504	B	2.3
	C	13.5
	E	2.3
Q505	B	3.5
	E	7.0
Q507	B	0.2
	C	8.4
Q509	B	8.4
	E	8.2
Q510	B	8.4
	C	14.2
	E	8.2
Q511	B	7.5
	C	*
	E	7.0
Q512	B	−14.3
	C	−0.1
	E	−14.3
Q514	G	175.8
	D	76.8
	S	180.1
Q516	B	5.2
	C	42.4
	E	4.6
Q517	B	4.9
	C	70.9
	E	4.4
Q518	G	0
	D	31.2
Q519	B	−0.9
	C	76.5
Q520	G	4.8
	D	0
Q521	B	4.3
	E	3.8
Q522	G	4.9
	D	0
Q523	G	4.8
	D	4.8
Q524	G	4.8
	D	0
Q525	B	4.8
	E	5.4
Q527	B	4.9
	C	0.4
Q528	B	42.4
	E	43.0
Q529	B	44.3
	C	74.3
	E	43.7
Q530	B	43.0
	E	43.3
Q531	B	43.7
	C	74.3
	E	43.4
Q532	B	0
	C	4.9
Q601	B	0
	C	14.7
Q602	B	2.7
	C	16.4
	E	16.8
Q603	B	0
	C	2.5
Q604	B	2.5
	C	0
	E	2.5
Q605	B	0.8
	C	0.1
	E	0
Q901	B	0.1
	C	8.8
Q903	B	7.8'
	E	7.6
Q904	B	7.6
	C	14.0
	E	7.6
Q905	G	177.3
	D	60.2
	S	179.8
Q906	G	7.6
	D	60.5

• D BOARD WAVEFORMS

①	②	③	④	⑤	⑥	⑦
5.0 Vp-p (4MHz)	4.5 Vp-p (H)	2.0 Vp-p (H)	600 Vp-p (H)	45.0 Vp-p (H)	45.0 Vp-p (V)	1.0 Vp-p (V)



• D BOARD IC1502 LA6510



• D BOARD SEMICONDUCTOR LOCATION

IC	(Conductor Side)	(Component Side)
IC001		B–2
IC002		B–3
IC004		A–2
IC005		B–2
IC007		B–3
IC008	B–1	B–5
IC009		A–2
IC010		A–4
IC011	B–3	B–3
IC013		B–3
IC501		A–4
IC502	C–3	C–3
IC601	C–4	C–2
IC602	C–5	C–1
IC603	D–4	D–2
IC604	F–3	F–2
IC605	C–4	C–2
IC901		F–3
IC902		F–3
IC1501	A–4	A–1
IC1502	B–4	B–2
IC1504	C–2	C–4

TRANSISTOR	(Conductor Side)	(Component Side)
Q001	A–1	①
Q002		A–3 ②
Q003	A–5	①
Q004	A–5	①
Q005	A–2	①
Q007	B–1	①
Q008	A–1	①
Q009	B–1	①
Q503	B–5	①
Q504	B–1	①
Q505	D–3	①
Q507	B–5	②
Q509	B–1	①
Q510	B–1	①
Q511	E–3	E–3
Q512	G–1	G–5
Q514	D–1	D–5
Q516	D–3	D–3
Q517	C–3	C–3
Q518	B–2	B–4
Q519	E–1	E–5
Q520	B–2	B–4
Q521	E–2	①
Q522	B–2	B–4
Q523	B–1	E–5
Q524	B–1	B–5
Q525	E–2	①
Q527	C–3	①
Q528	D–3	D–3
Q529	D–3	D–3
Q530	D–3	D–3
Q531	D–3	D–3
Q532		B–3 ②
Q601	G–3	①
Q602	C–5	C–1
Q603	C–4	①
Q604	C–4	①
Q605	E–4	E–2
Q901		①
Q903	F–3	①
Q904	F–3	①
Q905	G–3	G–3
Q906	G–2	G–4

DIODE	(Conductor Side)	(Component Side)
D001	A–4	A–2
D003	A–5	A–1
D005	A–4	A–2
D006	A–2	A–4
D009	A–1	A–4
D010	B–1	B–5
D011	B–4	③
D012		B–2 ③
D013	B–1	④
D014		A–5 ③
D017	A–4	③
D018	A–1	A–5 –
D020		A–3 ⑦
D021		A–3 ⑦
D022		A–3 ⑦
D023		A–3 ⑦
D024	A–3	A–3 –
D028	A–4	A–2 –
D030		A–3 ⑥
D503	D–3	D–3 –
D504	G–1	⑤
D505	E–3	E–3 –
D506	D–1	⑤
D508	D–1	D–5 –
D509		C–3 ⑤
D510	F–1	F–5 –
D511	E–1	E–5 –
D512	C–3	C–3 –
D513	E–1	E–5 –
D514	E–1	E–5 –
D515	E–1	E–5 –
D516	D–1	D–5 –
D517	C–2	C–4 –
D518	C–3	③
D519	E–2	E–4 –
D520	D–2	D–4 –
D522	D–3	D–3 –
D523	D–3	D–3 –
D524	D–1	D–4 –
D525	B–2	B–3 –
D601	F–4	F–2 –
D602	F–4	F–2 –
D603	F–5	F–1 –
D604	E–4	E–2 –
D606	E–4	E–1 –
D607	C–5	C–1 –
D608	C–5	C–1 –
D609	C–5	C–1 –
D610	B–5	B–1 –
D611	B–5	B–1 –
D612	B–5	B–1 –
D613	C–3	C–3 –
D614	E–3	E–3 –
D615	E–4	E–2 –
D616	E–3	E–3 –
D617	C–4	C–2 –
D619	C–3	C–3 –
D620	C–4	C–2 –
D621	E–4	E–2 –
D622	E–4	E–2 –
D623	B–4	③
D624	B–4	③
D902		E–3 ③
D903	E–3	③
D906		F–3 ③
D907	F–3	③
D908	F–3	③
D909	C–4	C–2 –
D910	G–3	G–3 –
D912	G–3	G–3 –
D913	E–2	E–4 –
D914	F–2	F–4 –
D915	E–3	E–3 –
D916	C–4	③
D917	G–3	G–3 –
D918		E–3 ③
D919	C–4	C–2 –
D1501	B–5	B–1 –
D1502	C–1	C–5 –
D1503	C–1	C–4 –
D1504	C–1	C–5 –
D1505	C–1	C–4 –
D1506	C–2	C–4 –

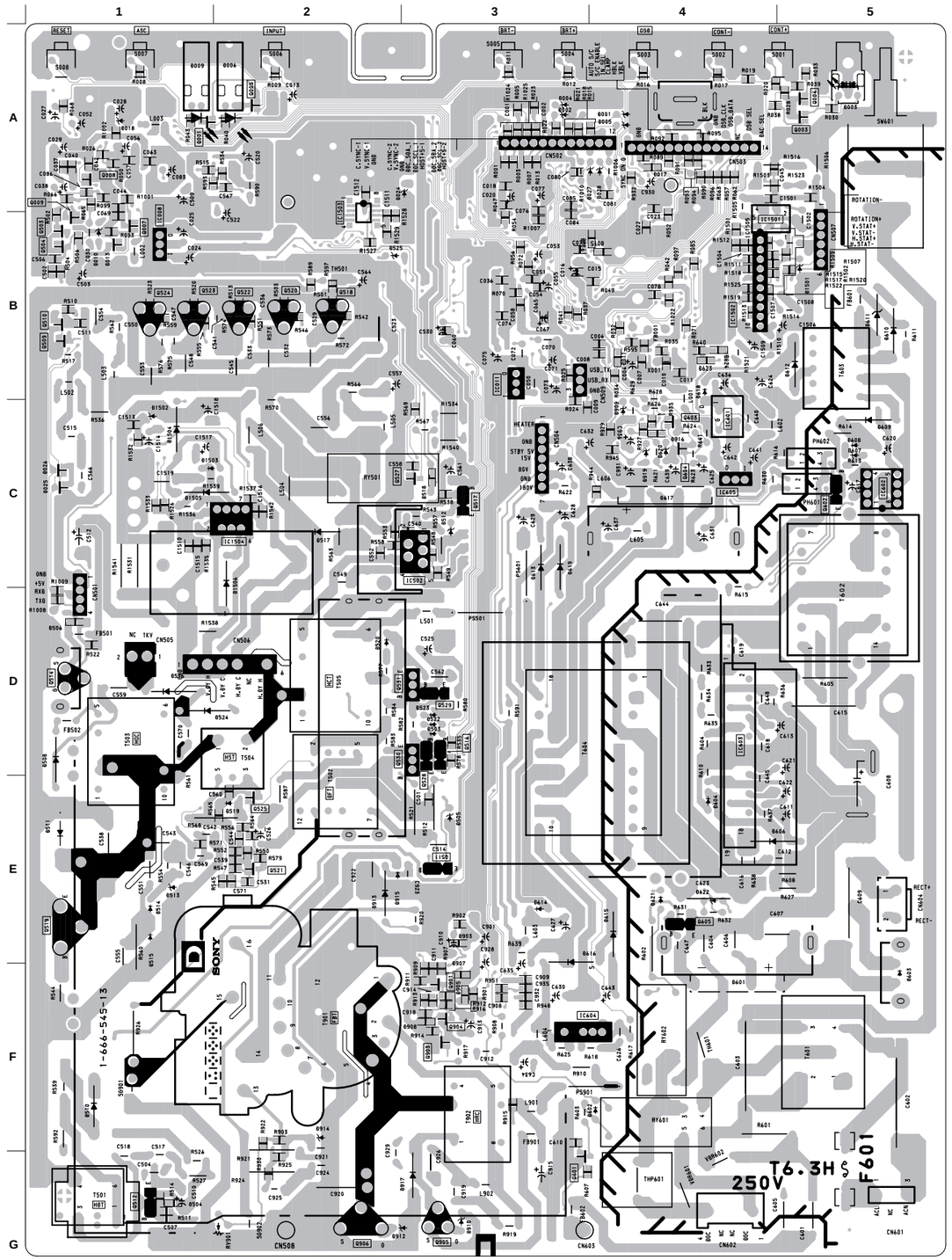
VARIABLE RESISTOR	(Conductor Side)	(Component Side)
RV901	G–2	G–4

VARIABLE RESISTOR	(Conductor Side)	(Component Side)
X001	B–4	B–2

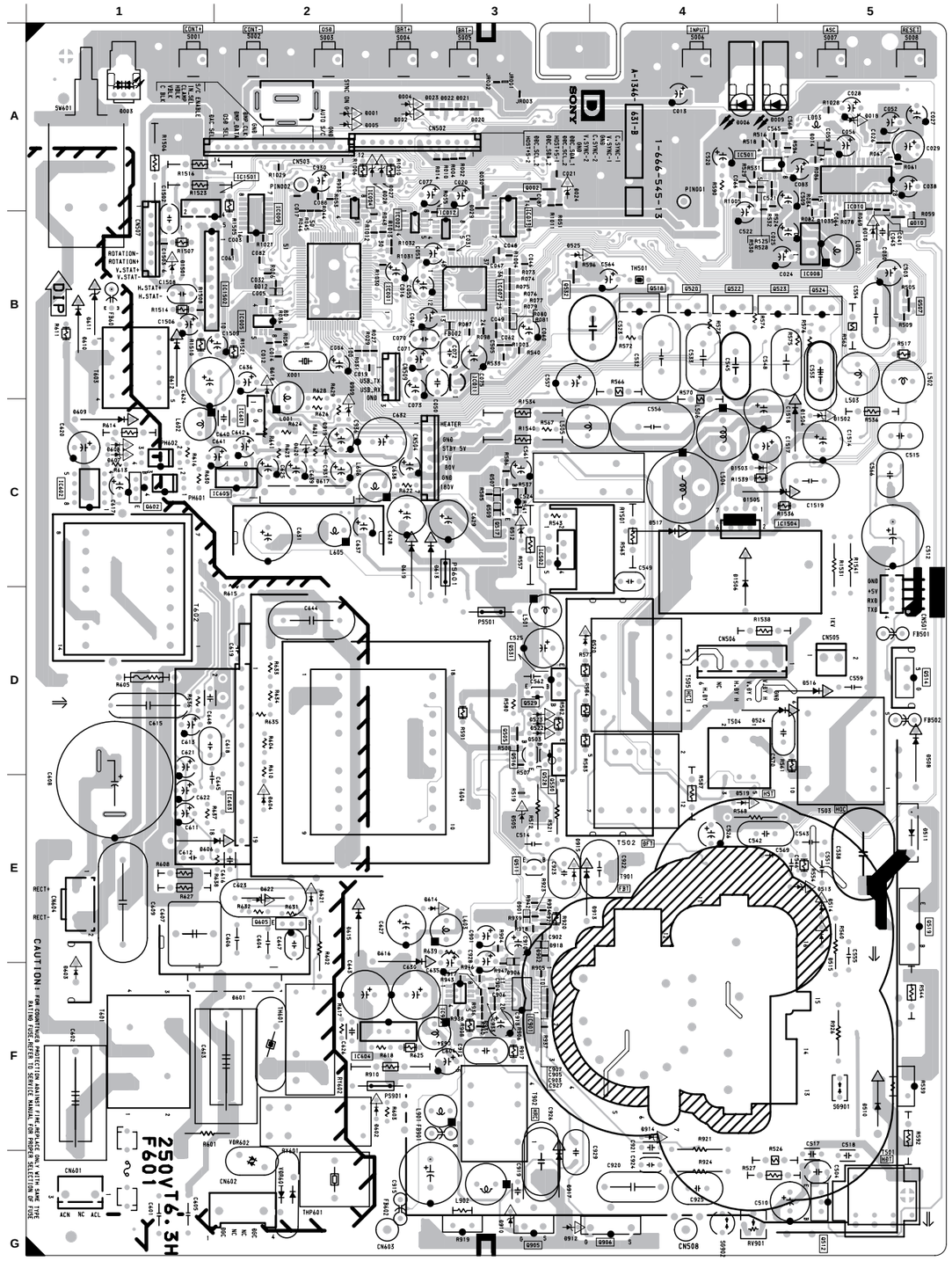
*: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 5-4)

D POWER SUPPLY, U-COM, DEFLECTION

— D BOARD (Conductor Side) —

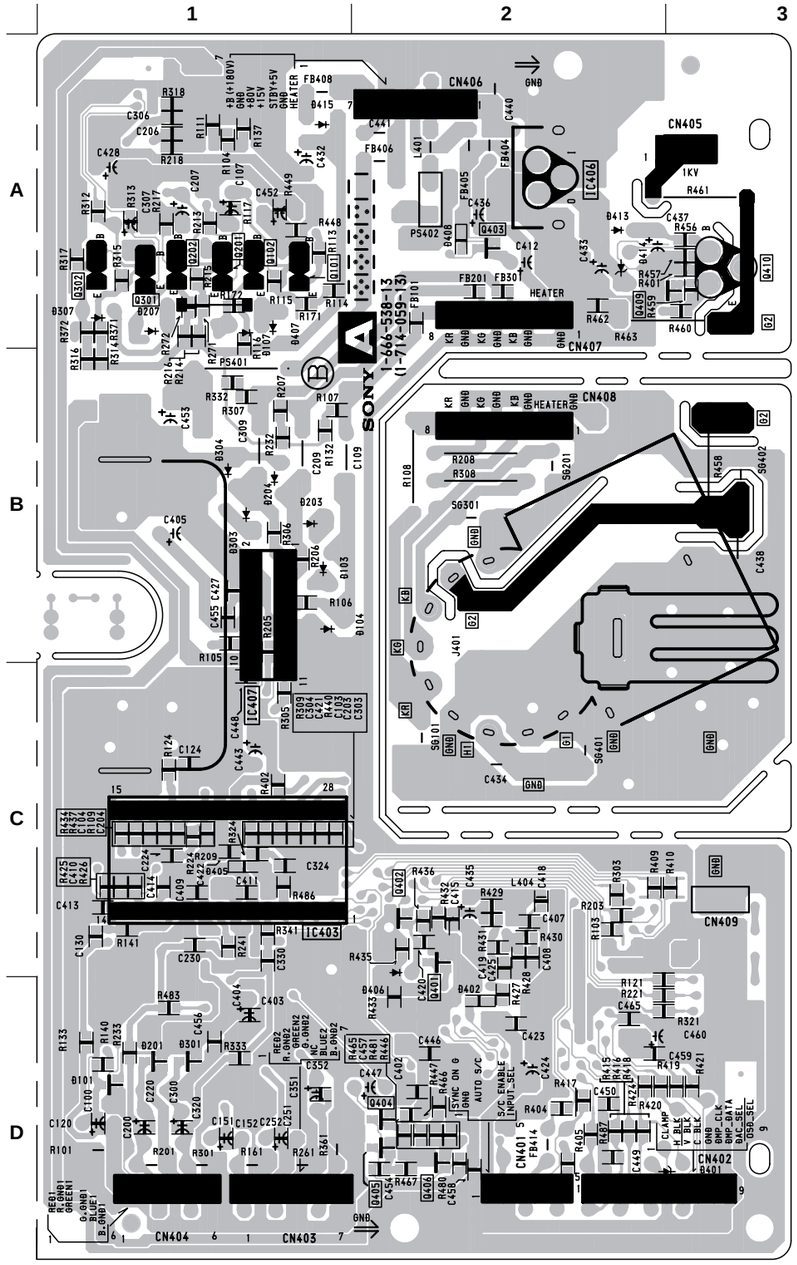


— D BOARD (Component Side) —

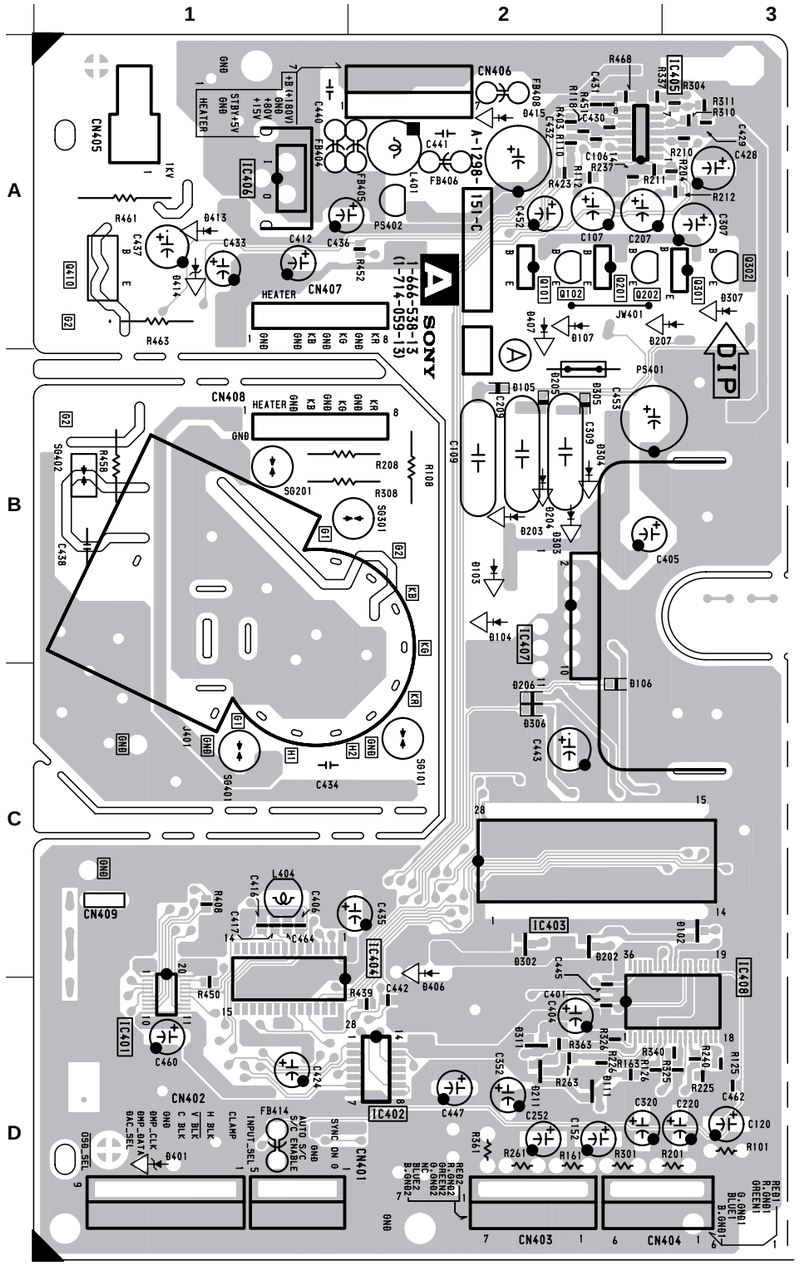


A [VIDEO AMP / RGB OUT]

— A BOARD (Conductor Side) —



— A BOARD (Component Side) —



- **A BOARD SEMICONDUCTOR LOCATION**

IC	(Conductor Side)	(Component Side)
IC401		D–1
IC402		D–2
IC403	C–1	C–2
IC404		C–1
IC405		A–2
IC406	A–2	A–1
IC407	B–1	B–2
IC408		D–2

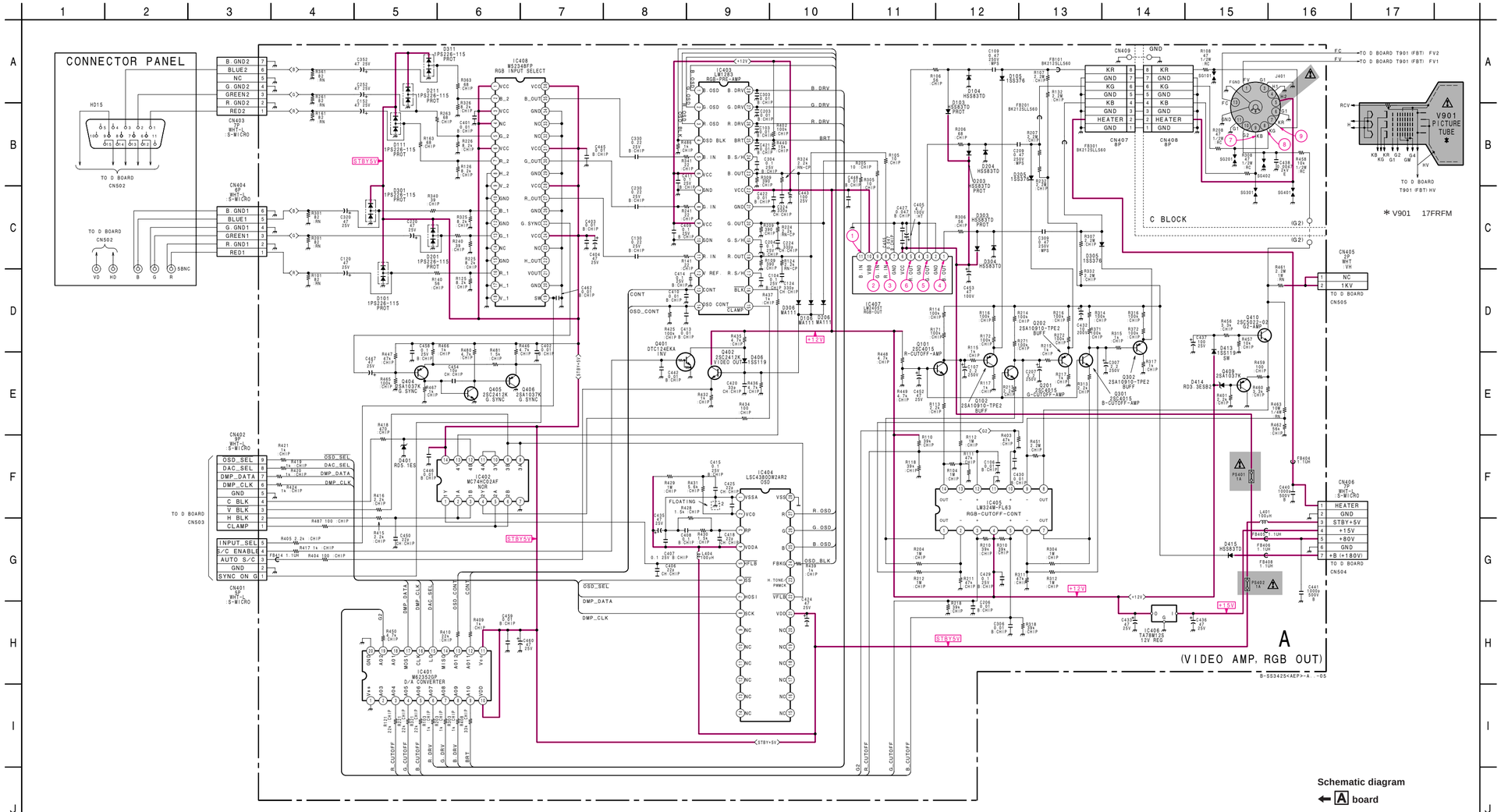
TRANSISTOR	(Conductor Side)	(Component Side) *	
Q101	A–1	A–2	–
Q102	A–1	A–2	–
Q201	A–1	A–2	–
Q202	A–1	A–2	–
Q301	A–1	A–3	–
Q302	A–1	A–3	–
Q401	C–2		①
Q402	C–2		①
Q404	D–2		①
Q405	D–2		①
Q406	D–2		①
Q409	A–3		①
Q410	A–3	A–1	–

DIODE	(Conductor Side)	(Component Side) *	
D101	D–1		⑥
D103	B–1	B–2	–
D104	B–1	B–2	–
D105		B–2	③
D106		C–2	③
D111		D–2	⑦
D201	D–1		⑥
D203	B–1	B–2	–
D204	B–1	B–2	–
D205		B–2	③
D206		C–2	③
D211		D–2	⑦
D301	D–1		⑥
D303	B–1	B–2	–
D304	B–1	B–2	–
D305		B–2	③
D306		C–2	③
D311		D–2	⑦
D401	D–3	D–1	–
D406	D–2	D–2	–
D413	A–2	A–1	–
D414	A–2	A–1	–
D415	A–1	A–2	–

∗: **Refer to Terminal name of semiconductors in silk screen printed circuit (see page 5-4)**

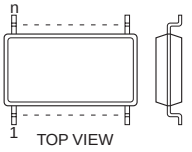
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

(2) Schematic Diagrams of A Board


CONNECTOR PANEL
HD15
TO D BOARD CN502
CN403 WHT-L S-W/CRO
CN404 6P WHT-L S-W/CRO
B. GND2
BLUE2
NC
G. GND2
GREEN2
R. GND2
RED2
B. GND1
BLUE1
G. GND1
GREEN1
R. GND1
RED1
VD
HD
B
G
R
SBNC
STBY5V
IC408 M52348FP RGB INPUT SELECT
IC403 LM1393 RGB PRE-AMP
IC407 M52402FP RGB-OUT
IC404 LSC4380DW2AR2 OSD
IC402 MC74HC02AF NOR
IC401 S-W/CRO
IC405 LM1248-FLE3 RGB-CUTOFF-CONT
IC406 TA78M12S 12V REG
IC409 M62363GP D/A CONVERTER
Q101 2SC4213K G.SYNC
Q102 2SA1091O-TPE2 BUFF
Q201 2SC4015 R-CUTOFF-AMP
Q301 2SC4015 B-CUTOFF-AMP
Q202 2SA1091O-TPE2 BUFF
Q203 2SA1091O-TPE2 BUFF
Q401 2SC4015 R-CUTOFF-AMP
Q402 2SC4213K SYNC OUT
Q403 DTC124EKA INV
Q404 2SA1037K G.SYNC
Q405 2SC4213K G.SYNC
Q406 2SA1037K G.SYNC
Q410 2SC2412K-QR AMP
Q414 RD3.3ES B2
Q415 2SA1037K SW
D101 1PS226-115 PROT
D104 HS883TD
D105 1SS376
D106 MA111
D201 1SS119
D202 1SS119
D203 HS883TD PROT
D204 HS883TD
D205 1SS376
D206 HS883TD PROT
D207 HS883TD PROT
D208 HS883TD
D209 HS883TD PROT
D210 HS883TD
D211 1PS226-115 PROT
D301 1PS226-115 PROT
D302 1PS226-115 PROT
D303 HS883TD PROT
D304 HS883TD
D305 1SS376
D306 MA111
D401 RD5.1ES
D402 1SS119
D403 1SS119
D404 1SS119
D405 1SS119
D406 1SS119
D407 1SS119
D408 1SS119
D409 1SS119
D410 1SS119
D411 1SS119
D412 1SS119
D413 1SS119
D414 RD3.3ES B2
D415 HS883TD
D416 1SS119
D417 1SS119
D418 1SS119
D419 1SS119
D420 1SS119
D421 1SS119
D422 1SS119
D423 1SS119
D424 1SS119
D425 1SS119
D426 1SS119
D427 1SS119
D428 1SS119
D429 1SS119
D430 1SS119
D431 1SS119
D432 1SS119
D433 1SS119
D434 1SS119
D435 1SS119

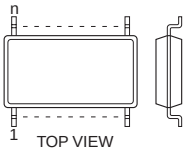
5-4. SEMICONDUCTORS

BA10393F
NJM4558M
µPC4558G2
24LC16BT/SN
24LC21A/SN



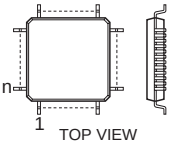
8 pin SOP

BA9756F-E2
M62352GP-75E
M62352GP-75ED



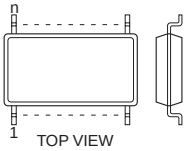
20 pin SOP

CAX2043Q



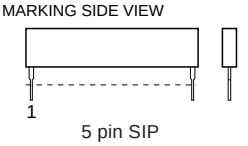
48 pin QFP

CXA2044M
LSC4380DW2AR2



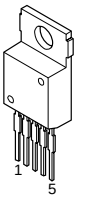
28 pin SOP

DM-57N

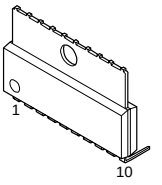


5 pin SIP

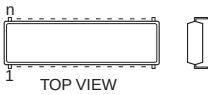
LA6500-FA



LA6510

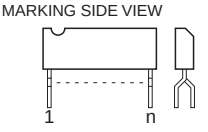


LM1283N



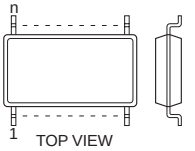
28 pin DIP

LM2405T



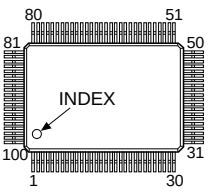
11 pin ZIP

LM324M
MC74HC02AF
SN74HC02ANS
SN74HC04ANS
SN74HCT04ANS

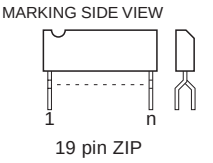


14 pin SOP

MB90P553PF-G-120-BND

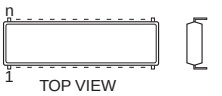


MCR5102



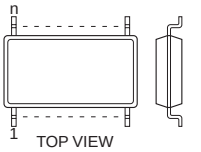
19 pin ZIP

MM1170BFB
PQ6RD83B
TOP223PF1



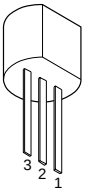
8 pin DIP

M52755FP



36 pin SOP

NJM78L09A
TA78L09S



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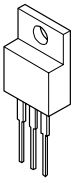
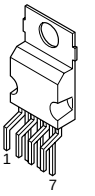
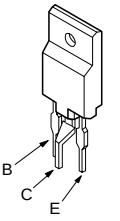
TA78M12S
TA7805S



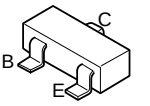
TDA8172



BU2527AX-ON5020



DTA114GKAT146
DTA124EKA-T146
DTC114GKA
DTC114GKAT146
DTC124EK
DTC124EKA-T146
2SA1036K-Q
2SA1036K-T-146-Q
2SA1037K-T-146-QR
2SC1623-L5L6
2SC2412K-T-146-QR



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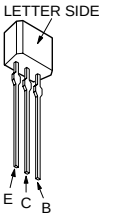
2SC2459-GR
2SC2784
2SC2785-HFE
2SC3311A-RTA



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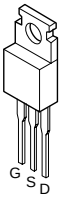

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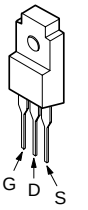
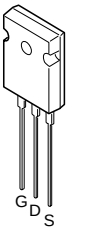
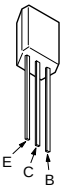


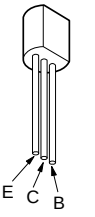
IRFPE50LF21



2SA1049-GR



2SA1091-O
2SC2362K-G



2SA1358-Y
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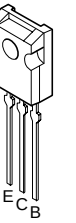

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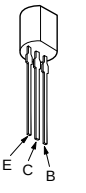

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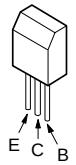

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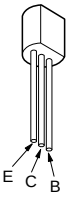

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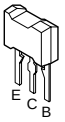

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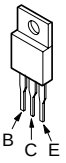
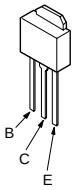
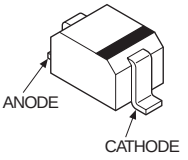
2SJ449
2SJ449(1)



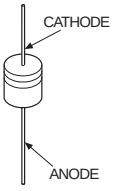
2SDS1802-S



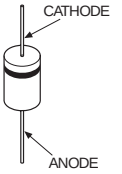
DTZ-10B
DTZ-13B
DTZ-5.1B
MA111-TX
RD12SB2
UDZ-TE-17-10B
UDZ-TE-17-12B
UDZ-TE-17-13B
UDZ-TE-17-22B
UDZ-TE-17-5.1B



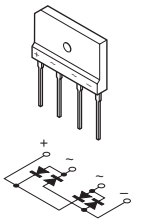
D1NS4
D1NL20-TR
EGP10GPKG23
RD12ES-B2
RD13ES-B2
RD16ES-B2
RD16ES-B3
RD24ES-B2
RE24ES-B3
RD3.3ES-B2
RD5.1ES-B2
RD6.8ES-B1
RD7.5ES-B1
1SS119-25TD
1SS119-25



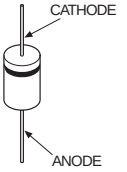
D1NS4-TR
D2L20U
EL1Z
ERA22-06AVRBT
ERA22-08
GP08D
GP08DPKG23
HSS83TD
RPG02-17EL-6433
RPG02-17PKG23
RGP10GPKG23
UF4005PKG23



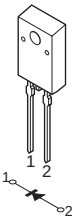
D2L40-TA
D4SBS4
D4SBS4-F
D4SB60L



D2S4MF
D2S4MTA1



D5L60
FMQ-G5FMS
PG124S15



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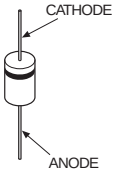
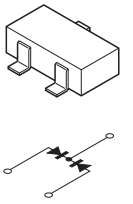
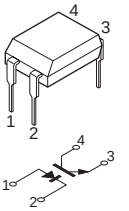
ERA91-02
RGP10JPKG23
S2LA20F



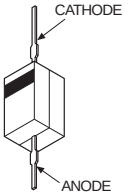
MA151WK
1SS184



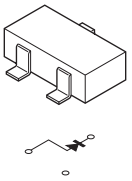
PC123F2
PC123FY2



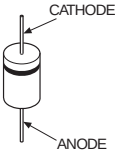
P6KE170AG23
SB340L-6489



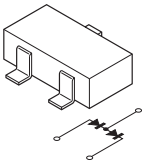
RD7.5M-B2



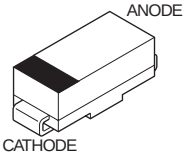
SB340



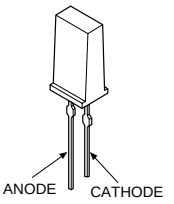
1PS226-115



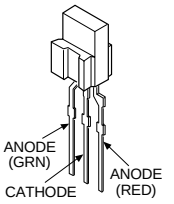
1SS376TE-17



SEL1922D-C
SEL1922D-C, D



SPB-26MVWF



SECTION 6
EXPLODED VIEWS

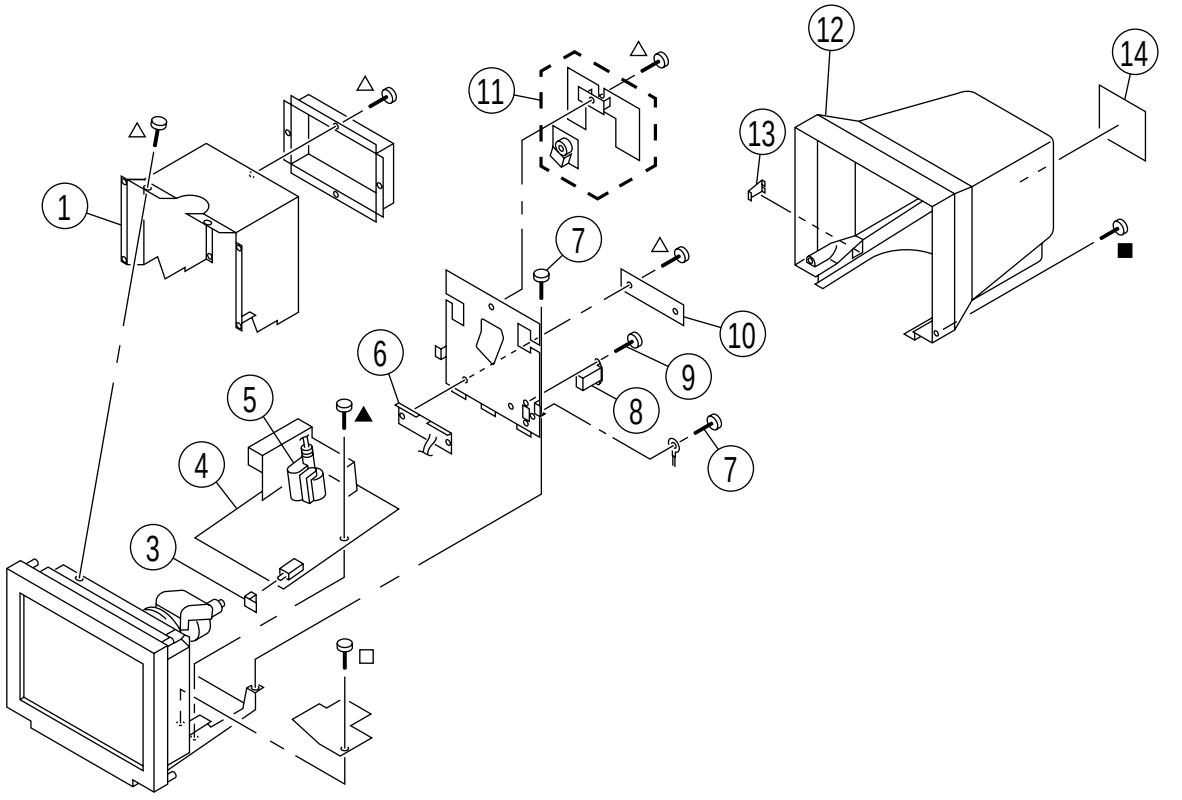
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. CHASSIS

▲ 7-685-647-79 +BVTP 3X10
■ 7-685-663-71 +BVTP 4X16
△ 7-685-872-09 +BVTT 3X8
□ 7-685-881-09 +BVTT 4X8



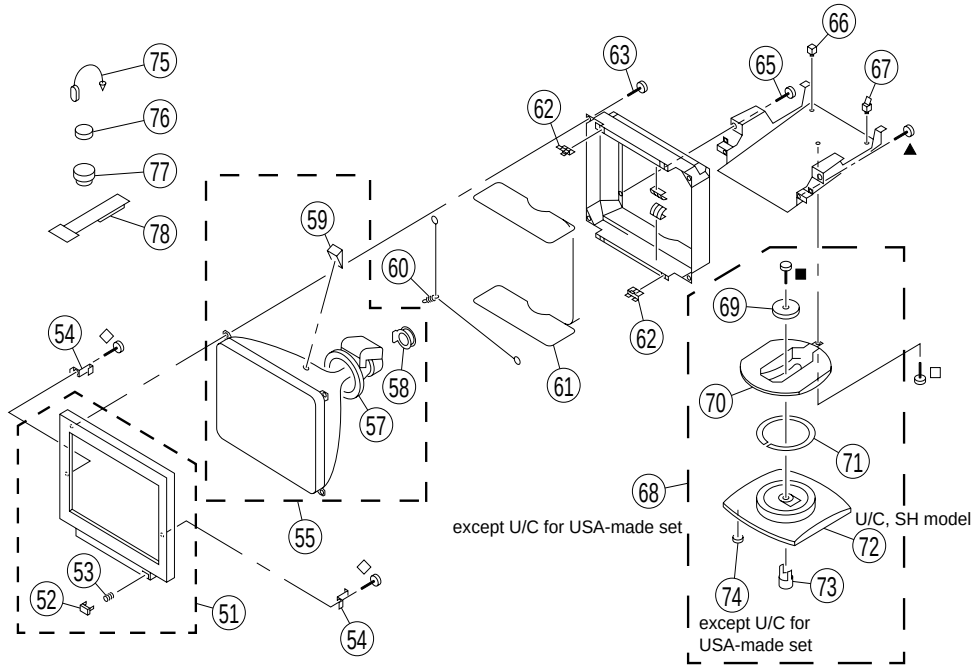
REF.NO.	PART NO.	DESCRIPTION	REMARK
1	* X-4034-844-1	SHIELD ASSY, EMI [U/C, SH model]	
1	* X-4035-398-1	SHIELD ASSY, EMI [AEP, UK model]	
3	* 4-394-972-21	CAP, POWER	
4	* A-1346-713-B	D BOARD, COMPLETE	5
5	⚠ X-4035-177-1	TRANSFORMER ASSY, FLYBACK (NX-4401//J1M4)	
6	1-694-347-11	TERMINAL BOARD ASSY, I/O	
7	4-389-025-01	SCREW (M4) (EXT TOOTH WASHER)	
8	⚠ 1-251-382-22	INLET, AC 3P(WITH NOISE FILTE)	
9	4-052-345-01	SCREW, (3X8) (+K), TAPPING	
10	4-060-368-12	SHEET, CONNECTOR	
11	* 8-933-248-00	A BOARD, COMPLETE	
12	4-060-394-12	CABINET [U/C for Japan-made set, SH model]	
12	X-4034-867-1	CABINET ASSY [AEP, UK model]	13
12	4-060-696-01	CABINET [U/C for USA-made set]	
13	4-060-401-11	COVER, ECS [U/C for Japan-made set, SH model]	
13	4-060-528-01	COVER, ECS [AEP, UK model]	
13	4-060-704-01	COVER, ECS [U/C for USA-made set]	
14	* 4-061-169-01	LABEL, INFORMATION [U/C for Japan-made set, SH model]	
14	* 4-061-169-12	LABEL, INFORMATION [U/C for USA-made set]	
14	* 4-061-170-01	LABEL, INFORMATION [200PST AEP, UK model]	
14	4-204-887-01	LABEL, INFORMATION [200PST9]	

6-2. PICTURE TUBE

▲ 7-685-647-79 +BVTP 3X10
■ 7-685-663-71 +BVTP 4X16
□ 7-685-881-09 +BVTT 4X8
◇ 7-685-661-79 +P 4X12

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

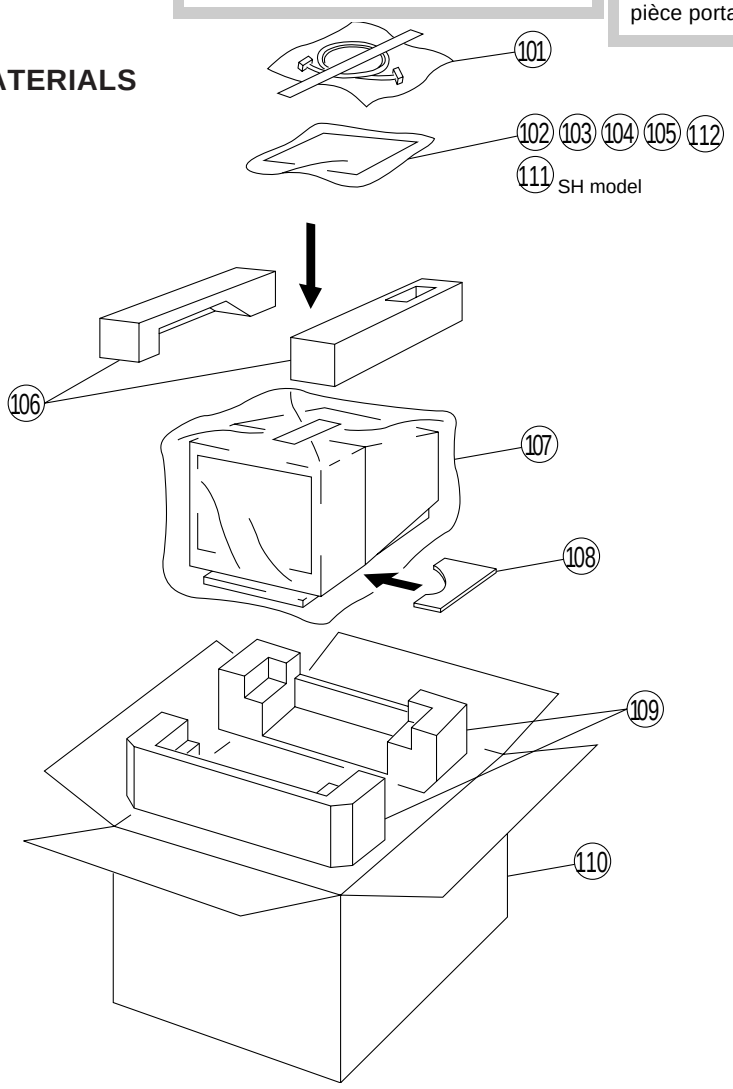


REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4034-845-1	BEZEL ASSY [U/C for Japan-made set, SH model]	52, 53
51	X-4034-866-1	BEZEL ASSY [AEP, UK model]	52, 53
51	X-4034-887-1	BEZEL ASSY [U/C for USA-made set]	52, 53
52	4-060-420-01	BUTTON, POWER [U/C for Japan-made set, SH model]	
52	4-060-523-01	BUTTON, POWER [AEP, UK model]	
52	4-060-699-01	BUTTON, POWER [U/C for USA-made set]	
53	3-653-339-21	SPRING, COMPRESSION [U/C for USA-made set]	
53	3-653-339-01	SPRING, COMPRESSION [U/C for Japan-made set, SH model]	
53	3-653-339-11	SPRING, COMPRESSIN [AEP, UK model]	
54	4-052-459-11	HOOK (17) [U/C for USA-made set]	
54	4-052-459-01	HOOK (17) [except U/C for USA-made set]	
55	⚠ 8-738-728-80	ITC ASSY (17FRFM-RS1) [SH model]	57-59
55	⚠ 8-738-733-81	ITC ASSY (17FRFM-R1) [except SH model]	57-59
57	⚠ 8-451-488-11	DEFLECTION YOKE (Y17FRJ-M)	
58	⚠ 1-452-923-21	NECK ASSEMBLY	
59	4-040-897-01	SPACER, DY [U/C for USA-made set]	
59	4-050-492-01	SPACER, DY [except U/C for USA-made set]	
60	* 4-047-316-01	SPRING, EXTENSION [except U/C for USA-made set]	
60	* 4-061-573-01	SPRING, TENSION [U/C for USA-made set]	
61	⚠ 1-416-282-41	COIL, DEMAGNETIC	
62	* 4-056-260-01	SPACER, DEGAUSSER COIL	
63	4-203-648-01	SCREW (5), SELF TAPPING [AEP, UK model]	
63	4-365-808-01	SCREW (5), TAPPING [U/C, SH model]	
65	4-389-025-01	SCREW (M4) (EXT TOOTH WASHER)	
66	* 4-382-848-01	HOLDER, PRINTED CIRCUIT BOARD	
67	* 3-703-141-00	HOLDER, PRINTED CIRCUIT BOARD	
68	X-4034-847-1	STAND ASSY [U/C for Japan-made set, SH model]	69-74
68	X-4034-868-1	STAND ASSY [AEP, UK model]	69-74
69	4-060-340-01	STOPPER (A) [U/C for Japan-made set, SH model]	
69	4-060-644-02	STOPPER (A) [AEP, UK model]	
69	4-060-531-01	STOPPER (A) [U/C for USA-made set]	
70	4-060-396-11	SLIDER [U/C for Japan-made set, SH model]	
70	4-060-522-01	SLIDER [AEP, UK model]	
70	4-060-698-01	SLIDER [U/C for USA-made set]	
71	4-060-339-01	RING, TILT SWIVEL [U/C for Japan-made set, SH model]	
71	4-060-643-01	RING, TILT SWIVEL [APE, UK model]	
71	4-060-705-01	RING, TILT SWIVEL [U/C for USA-made set]	
72	X-4034-851-1	BASE ASSY, STAND [U/C for Japan-made set, SH model]	74
72	X-4034-890-1	BASE ASSY, STAND [U/C for USA-made set]	
73	4-041-621-21	STOPPER (B) [U/C for USA-made set]	
73	4-041-621-01	STOPPER (B) [except U/C for USA-made set]	
74	4-047-474-01	FOOT, RUBBER [except U/C for USA-made set]	
75	4-308-870-00	CLIP, LEAD WIRE	
76	1-452-032-00	MAGNET,DISC ; 10 mmϕ	
77	1-452-094-00	MAGNET, ROTATABLE DISK; 15mmϕ	
78	4-059-493-01	PERMALLOY (90), CONV.CORRECT	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-3. PACKING MATERIALS



REF.NO.	PART NO.	DESCRIPTION	REMARK
101	1-777-743-11	CABLE ASSY (15PDSUBX2CONNECTOR) [U/C, SH model]	
101	1-790-212-11	CABLE ASSY [AEP, UK model]	
102	1-573-983-31	ADAPTOR, CONVERSION (for Macintosh)	
103	⚠1-558-481-11	CORD SET, POWER (10A/250V)	[SH model]
103	⚠1-790-714-11	CORD SET, POEWR (10A/250V)	[AEP model]
103	⚠1-765-718-11	CORD SET, POWER (10A/125V)	[U/C model]
103	⚠1-775-706-11	CORD SET, POWER (10A/250V)	[UK model]
104	3-861-050-11	MANUAL, INSTRUCTION	[U/C for Japan-made set, SH model]
104	3-861-050-21	MANUAL, INSTRUCTION	[U/C for USA-made set]
104	3-861-051-11	MANUAL, INSTRUCTION	[200PST AEP, UK model]
104	3-861-051-31	MANUAL, INSTRUCTION [200PST9]	
105	1-759-641-21	DISK, INFORMATION (WINDOWS, 3.5") [U/C for USA-made set]	
105	1-759-641-14	DISK, INFORMATION (WINDOWS, 3.5") [except U/C for USA-made set]	
106	*4-060-582-01	CUSHION (UPPER) (ASSY)	[AEP, UK model]
106	*4-060-574-01	CUSHION (UPPER) (ASSY)	[U/C for USA-made set]
106	*4-060-006-01	CUSHION (UPPER) (ASSY)	[U/C for Japan-made set, SH model]
107	*4-041-927-11	BAG, POLYETHYLENE [U/C, SH model]	
107	*4-060-490-01	BAG, POLYETHYLENE [AEP, UK model]	
108	*4-060-581-01	PAD FOR TILT FIXING	[U/C for USA-made set]
108	*4-060-012-01	PAD FOR TILT FIXING	[U/C for Japan-made set, SH model]
108	*4-060-588-01	PAD FOR TILT FIXING [AEP, UK mdoel]	
109	*4-060-575-01	CUSHION (LOWER) (ASSY)	[U/C for USA-made set]
109	*4-060-007-01	CUSHION (LOWER) (ASSY)	[U/C for Japan-made set, SH model]
109	*4-060-583-01	CUSHION (LOWER) (ASSY)	[AEP, UK model]
110	*4-060-589-01	INDIVIDUAL CARTON	[U/C for Japan-made set, SH model]
110	*4-060-590-01	INDIVIDUAL CARTON	[U/C for USA-made set]
110	*4-060-591-01	INDIVIDUAL CARTON	[200PST AEP, UK mdoel]
110	*4-204-889-01	INDIVIDUAL CARTON [200PST9]	
111	1-774-648-21	ADAPTOR, CONVERSION (for VGA)	[SH model]
112	1-785-429-11	ADAPTOR, CONVERSION (for Mac)	

SECTION 7
ELECTRICAL PARTS LIST

A

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

REF.NO.	PART NO.	DESCRIPTION			REMARK
*	A-1298-233-B	A BOARD, COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+) (IC406, IC407)			
		<CAPACITOR>			
C103	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C104	1-164-004-11	CERAMIC CHIP	0.1µF	10% 25V	
C106	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C107	1-107-649-11	ELECT	2.2µF	20% 250V	
C109	1-117-450-11	FILM	0.47µF	10% 250V	
C120	1-104-664-11	ELECT	47µF	20% 25V	
C124	1-163-263-11	CERAMIC CHIP	330pF	5% 50V	
C130	1-115-340-11	CERAMIC CHIP	0.22µF	10% 25V	
C152	1-104-664-11	ELECT	47µF	20% 25V	
C203	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C204	1-164-004-11	CERAMIC CHIP	0.1µF	10% 25V	
C206	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C207	1-107-649-11	ELECT	2.2µF	20% 250V	
C209	1-117-450-11	FILM	0.47µF	10% 250V	
C220	1-104-664-11	ELECT	47µF	20% 25V	
C224	1-163-263-11	CERAMIC CHIP	330pF	5% 50V	
C230	1-115-340-11	CERAMIC CHIP	0.22µF	10% 25V	
C252	1-104-664-11	ELECT	47µF	20% 25V	
C303	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C304	1-164-004-11	CERAMIC CHIP	0.1µF	10% 25V	
C306	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C307	1-107-649-11	ELECT	2.2µF	20% 250V	
C309	1-117-450-11	FILM	0.47µF	10% 250V	
C320	1-104-664-11	ELECT	47µF	20% 25V	
C324	1-163-263-11	CERAMIC CHIP	330pF	5% 50V	
C330	1-115-340-11	CERAMIC CHIP	0.22µF	10% 25V	
C352	1-104-664-11	ELECT	47µF	20% 25V	
C401	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C402	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C403	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C404	1-104-664-11	ELECT	47µF	20% 25V	
C405	1-107-928-11	ELECT	4.7µF	20% 100V	
C406	1-163-235-11	CERAMIC CHIP	22pF	5% 50V	
C407	1-164-004-11	CERAMIC CHIP	0.1µF	10% 25V	
C408	1-164-004-11	CERAMIC CHIP	0.1µF	10% 25V	
C409	1-164-004-11	CERAMIC CHIP	0.1µF	10% 25V	
C410	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C411	1-164-004-11	CERAMIC CHIP	0.1µF	10% 25V	
C413	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C414	1-164-004-11	CERAMIC CHIP	0.1µF	10% 25V	
C415	1-164-004-11	CERAMIC CHIP	0.1µF	10% 25V	
C418	1-163-235-11	CERAMIC CHIP	22pF	5% 50V	
C420	1-163-222-11	CERAMIC CHIP	5pF	0.25pF 50V	
C421	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C422	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C424	1-104-664-11	ELECT	47µF	20% 25V	
C425	1-163-235-11	CERAMIC CHIP	22pF	5% 50V	
C427	1-104-760-11	CERAMIC CHIP	0.047µF	10% 50V	
C429	1-164-004-11	CERAMIC CHIP	0.1µF	10% 25V	
C430	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C432	1-107-652-11	ELECT	10µF	20% 200V	
C433	1-104-664-11	ELECT	47µF	20% 25V	
C435	1-104-664-11	ELECT	47µF	20% 25V	
C436	1-104-664-11	ELECT	47µF	20% 25V	
C437	1-104-665-11	ELECT	100µF	20% 25V	
C438	1-162-114-00	CERAMIC	0.0047µF	2KV	
C440	1-162-318-11	CERAMIC	0.001µF	10% 500V	
C441	1-162-318-11	CERAMIC	0.001µF	10% 500V	
C442	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C443	1-104-665-11	ELECT	100µF	20% 25V	
C445	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C446	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C447	1-104-664-11	ELECT	47µF	20% 25V	
C448	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C450	1-163-235-11	CERAMIC CHIP	22pF	5% 50V	
C452	1-104-664-11	ELECT	47µF	20% 25V	
C453	1-128-562-11	ELECT	47µF	20% 100V	
C454	1-163-227-11	CERAMIC CHIP	10pF	0.5pF 50V	
C455	1-104-760-11	CERAMIC CHIP	0.047µF	10% 50V	
C458	1-164-004-11	CERAMIC CHIP	0.1µF	10% 25V	
C459	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
C460	1-104-664-11	ELECT	47µF	20% 25V	
C462	1-164-232-11	CERAMIC CHIP	0.01µF	10% 50V	
		<CONNECTOR>			
CN401	* 1-564-520-11	PLUG, CONNECTOR 5P			
CN402	* 1-564-524-11	PLUG, CONNECTOR 9P			
CN403	* 1-564-522-11	PLUG, CONNECTOR 7P			

A

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN404*	1-564-521-11	PLUG, CONNECTOR 6P	
CN405*	1-766-179-11	PIN, CONNECTOR (PC BOARD) 2P	
CN406*	1-564-522-11	PLUG, CONNECTOR 7P	
CN409	1-695-915-11	TAB (CONTACT)	
		<DIODE>	
D101	8-719-062-51	DIODE 1PS226-115	
D103	8-719-051-85	DIODE HSS83TD	
D104	8-719-051-85	DIODE HSS83TD	
D105	8-719-052-12	DIODE 1SS376TE-17	
D106	8-719-404-50	DIODE MA111-TX	
D111	8-719-062-51	DIODE 1PS226-115	
D201	8-719-062-51	DIODE 1PS226-115	
D203	8-719-051-85	DIODE HSS83TD	
D204	8-719-051-85	DIODE HSS83TD	
D205	8-719-052-12	DIODE 1SS376TE-17	
D206	8-719-404-50	DIODE MA111-TX	
D211	8-719-062-51	DIODE 1PS226-115	
D301	8-719-062-51	DIODE 1PS226-115	
D303	8-719-051-85	DIODE HSS83TD	
D304	8-719-051-85	DIODE HSS83TD	
D305	8-719-052-12	DIODE 1SS376TE-17	
D306	8-719-404-50	DIODE MA111-TX	
D311	8-719-062-51	DIODE 1PS226-115	
D401	8-719-109-85	ZENER DIODE RD5.1ESB2	
D402	8-719-404-50	DIODE MA111-TX	
D406	8-719-911-19	DIODE 1SS119-25	
D413	8-719-911-19	DIODE 1SS119-25	
D414	8-719-109-66	ZENER DIODE RD3.3ESB2	
D415	8-719-051-85	DIODE HSS83TD	
		<FERRITE BEAD>	
FB101	1-500-419-21	FERRITE	
FB201	1-500-419-21	FERRITE	
FB301	1-500-419-21	FERRITE	
FB404	1-412-911-31	FERRITE 1.1µH	
FB405	1-412-911-31	FERRITE 1.1µH	
FB406	1-412-911-31	FERRITE 1.1µH	
FB408	1-412-911-31	FERRITE 1.1µH	
FB414	1-412-911-31	FERRITE 1.1µH	
		<IC>	
IC401	8-759-635-27	IC M62352GP-75E	
IC402	8-759-925-72	IC SN74HC02ANS	
IC403	8-759-445-85	IC LM1283N	
IC404	8-759-566-26	IC LSC4380DW2AR2	
IC405	8-759-502-82	IC LM324M	
IC406	8-759-263-43	IC TA78M12S	
IC407	8-759-435-33	IC LM2405T	
IC408	8-759-522-86	IC M52755FP-TP	
		<JACK>	
J401	⚠1-251-598-11	SOCKET, PICTURE TUBE	
		<COIL>	
L401	1-412-537-31	INDUCTOR 100µH	
L402	1-408-615-31	INDUCTOR 100µH	
L404	1-414-189-31	INDUCTOR 100µH	
		<IC LINK>	
PS401	⚠1-533-590-31	LINK, IC (1A/90V AC, 60V DC)	
PS402	⚠1-532-637-91	LINK, IC (1A/150V)	
		<TRANSISTOR>	
Q101	8-729-041-66	TRANSISTOR 2SC4015TV2	
Q102	8-729-200-17	TRANSISTOR 2SA1091-O	
Q201	8-729-041-66	TRANSISTOR 2SC4015TV2	
Q202	8-729-200-17	TRANSISTOR 2SA1091-O	
Q301	8-729-041-66	TRANSISTOR 2SC4015TV2	
Q302	8-729-200-17	TRANSISTOR 2SA1091-O	
Q401	8-729-901-00	TRANSISTOR DTC124EK	
Q402	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q404	8-729-207-72	TRANSISTOR 2SA1037K-T-146-QR	
Q405	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q406	8-729-207-72	TRANSISTOR 2SA1037K-T-146-QR	
Q409	8-729-207-72	TRANSISTOR 2SA1037K-T-146-QR	
Q410	8-729-032-61	TRANSISTOR 2SC5022-02	
		<RESISTOR>	
R101	1-215-395-00	METAL 82 1% 1/4W	
R103	1-216-049-00	RES,CHIP 1K 5% 1/10W	
R104	1-216-121-91	RES,CHIP 1M 5% 1/10W	
R105	1-216-001-00	RES,CHIP 10 5% 1/10W	
R106	1-216-019-00	RES,CHIP 56 5% 1/10W	
R107	1-216-129-00	RES,CHIP 2.2M 5% 1/10W	
R108	1-219-742-11	CARBON 47 5% 1/2W	
R109	1-216-039-00	RES,CHIP 390 5% 1/10W	
R110	1-216-689-11	RES,CHIP 39K 5% 1/10W	
R111	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R112	1-216-121-91	RES,CHIP 1M 5% 1/10W	
R113	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R114	1-216-097-00	RES,CHIP 100K 5% 1/10W	
R115	1-216-049-00	RES,CHIP 1K 5% 1/10W	
R116	1-216-097-00	RES,CHIP 100K 5% 1/10W	
R117	1-216-049-00	RES,CHIP 1K 5% 1/10W	
R118	1-216-689-11	RES,CHIP 39K 5% 1/10W	
R121	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R124	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R132	1-216-129-00	RES,CHIP 2.2M 5% 1/10W	
R140	1-216-017-91	RES,CHIP 47 5% 1/10W	
R141	1-216-009-91	RES,CHIP 22 5% 1/10W	
R161	1-215-395-00	METAL 82 1% 1/4W	
R163	1-216-017-91	RES,CHIP 47 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R171	1-216-097-00	RES,CHIP	100K	5%	1/10W
R172	1-216-097-00	RES,CHIP	100K	5%	1/10W
R201	1-215-395-00	METAL	82	1%	1/4W
R203	1-216-049-00	RES,CHIP	1K	5%	1/10W
R204	1-216-121-91	RES,CHIP	1M	5%	1/10W
R205	1-216-001-00	RES,CHIP	10	5%	1/10W
R206	1-216-021-00	RES,CHIP	68	5%	1/10W
R207	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R208	1-219-742-11	CARBON	47	5%	1/2W
R209	1-216-039-00	RES,CHIP	390	5%	1/10W
R210	1-216-689-11	RES,CHIP	39K	5%	1/10W
R211	1-216-089-00	RES,CHIP	47K	5%	1/10W
R212	1-216-121-91	RES,CHIP	1M	5%	1/10W
R213	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R214	1-216-097-00	RES,CHIP	100K	5%	1/10W
R215	1-216-049-00	RES,CHIP	1K	5%	1/10W
R216	1-216-097-00	RES,CHIP	100K	5%	1/10W
R217	1-216-049-00	RES,CHIP	1K	5%	1/10W
R218	1-216-689-11	RES,CHIP	39K	5%	1/10W
R221	1-216-081-00	RES,CHIP	22K	5%	1/10W
R224	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R232	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R240	1-216-017-91	RES,CHIP	47	5%	1/10W
R241	1-216-009-91	RES,CHIP	22	5%	1/10W
R261	1-215-395-00	METAL	82	1%	1/4W
R263	1-216-017-91	RES,CHIP	47	5%	1/10W
R271	1-216-097-00	RES,CHIP	100K	5%	1/10W
R272	1-216-097-00	RES,CHIP	100K	5%	1/10W
R301	1-215-395-00	METAL	82	1%	1/4W
R303	1-216-049-00	RES,CHIP	1K	5%	1/10W
R304	1-216-121-91	RES,CHIP	1M	5%	1/10W
R305	1-216-001-00	RES,CHIP	10	5%	1/10W
R306	1-216-017-91	RES,CHIP	47	5%	1/10W
R307	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R308	1-219-742-11	CARBON	47	5%	1/2W
R309	1-216-039-00	RES,CHIP	390	5%	1/10W
R310	1-216-689-11	RES,CHIP	39K	5%	1/10W
R311	1-216-089-00	RES,CHIP	47K	5%	1/10W
R312	1-216-121-91	RES,CHIP	1M	5%	1/10W
R313	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R314	1-216-097-00	RES,CHIP	100K	5%	1/10W
R315	1-216-049-00	RES,CHIP	1K	5%	1/10W
R316	1-216-097-00	RES,CHIP	100K	5%	1/10W
R317	1-216-049-00	RES,CHIP	1K	5%	1/10W
R318	1-216-689-11	RES,CHIP	39K	5%	1/10W
R321	1-216-081-00	RES,CHIP	22K	5%	1/10W
R324	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R332	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R340	1-216-017-91	RES,CHIP	47	5%	1/10W
R341	1-216-009-91	RES,CHIP	22	5%	1/10W
R361	1-215-395-00	METAL	82	1%	1/4W
R363	1-216-017-91	RES,CHIP	47	5%	1/10W
R371	1-216-097-00	RES,CHIP	100K	5%	1/10W
R372	1-216-097-00	RES,CHIP	100K	5%	1/10W
R401	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R402	1-216-097-00	RES,CHIP	100K	5%	1/10W
R403	1-216-089-00	RES,CHIP	47K	5%	1/10W
R404	1-216-025-00	RES,CHIP	100	5%	1/10W
R405	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R408	1-216-085-00	RES,CHIP	33K	5%	1/10W
R409	1-216-049-00	RES,CHIP	1K	5%	1/10W
R410	1-216-081-00	RES,CHIP	22K	5%	1/10W
R415	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R416	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R417	1-216-049-00	RES,CHIP	1K	5%	1/10W
R418	1-216-041-00	RES,CHIP	470	5%	1/10W
R419	1-216-049-00	RES,CHIP	1K	5%	1/10W
R420	1-216-049-00	RES,CHIP	1K	5%	1/10W
R421	1-216-049-00	RES,CHIP	1K	5%	1/10W
R424	1-216-049-00	RES,CHIP	1K	5%	1/10W
R425	1-216-097-00	RES,CHIP	100K	5%	1/10W
R427	1-216-081-00	RES,CHIP	22K	5%	1/10W
R428	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R429	1-216-121-91	RES,CHIP	1M	5%	1/10W
R430	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R431	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R432	1-216-049-00	RES,CHIP	1K	5%	1/10W
R434	1-216-025-00	RES,CHIP	100	5%	1/10W
R435	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R436	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R437	1-216-049-00	RES,CHIP	1K	5%	1/10W
R439	1-216-049-00	RES,CHIP	1K	5%	1/10W
R440	1-216-077-00	RES,CHIP	15K	5%	1/10W
R446	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R447	1-216-089-00	RES,CHIP	47K	5%	1/10W
R448	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R449	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R450	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R451	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R456	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R457	1-216-073-00	RES,CHIP	10K	5%	1/10W
R458	1-219-749-91	CARBON	10K	5%	1/2W
R459	1-216-025-00	RES,CHIP	100	5%	1/10W
R460	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R461	1-211-885-21	METAL	2.2M	5%	1W
R462	1-216-091-00	RES,CHIP	56K	5%	1/10W
R463	1-211-895-11	METAL	10M	10%	1/4W
R465	1-216-097-00	RES,CHIP	100K	5%	1/10W
R466	1-216-049-00	RES,CHIP	1K	5%	1/10W
R467	1-216-049-00	RES,CHIP	1K	5%	1/10W
R480	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R481	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R486	1-216-049-00	RES,CHIP	1K	5%	1/10W
R487	1-216-025-00	RES,CHIP	100	5%	1/10W

<SPARK GAP>

SG101	1-517-499-21	GAP, SPARK			
SG201	1-517-499-21	GAP, SPARK			
SG301	1-517-499-21	GAP, SPARK			
SG401	1-517-499-21	GAP, SPARK			

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REF.NO.	PART NO.	DESCRIPTION			REMARK
SG402	1-519-422-11	GAP, SPARK			
**********					
*	A-1346-659-B	D BOARD, COMPLETE			
		**********			
	1-533-223-11	HOLDER, FUSE (F601)			
	2-371-561-00	BUSHING (P), INSULATING (IC502, IC1504)			
	3-710-578-01	COVER, VOLUME, 6 MOLD (RV901)			
	4-039-357-01	SCREW (3X8), (+) BV TAPPING			
	4-045-133-21	HOLDER (B), LED (D006, D009)			
*	4-049-002-01	HOLDER, LED (D003)			
	4-061-191-01	SHEET, INSULATE (IC502, IC1504)			
	4-061-192-01	SHEET, INSULATE (Q906)			
	4-382-854-11	SCREW (M3X10), P, SW (+) (IC502, IC603, IC1504, Q514, Q519, Q905, Q906, D511, D601, D603, D617, R539, R919)			
	4-812-134-00	RIVET (DIA. 3.5), NYLON			
	<CAPACITOR>				
C001	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C002	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C003	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C004	1-104-664-11	ELECT	47µF	20%	25V
C005	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C006	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C007	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C008	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C009	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C010	1-163-237-11	CERAMIC CHIP	27pF	5%	50V
C011	1-163-237-11	CERAMIC CHIP	27pF	5%	50V
C012	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C013	1-104-664-11	ELECT	47µF	20%	25V
C014	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C015	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C016	1-104-664-11	ELECT	47µF	20%	25V
C017	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C021	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C022	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C023	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C024	1-104-664-11	ELECT	47µF	20%	25V
C025	1-104-664-11	ELECT	47µF	20%	25V
C026	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C027	1-126-961-11	ELECT	2.2µF	20%	50V
C028	1-104-664-11	ELECT	47µF	20%	25V
C029	1-126-935-11	ELECT	470µF	20%	16V
C030	1-137-372-11	FILM	0.022µF	5%	50V
C031	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C032	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C036	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C037	1-164-690-91	CERAMIC CHIP	0.0022µF	5%	50V
C038	1-126-960-11	ELECT	1µF	20%	50V
C040	1-163-137-00	CERAMIC CHIP	680pF	5%	50V
C041	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C042	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C043	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C044	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C045	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C046	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C047	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C048	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C049	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C050	1-137-194-81	FILM	0.47µF	5%	50V
C051	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C052	1-126-963-11	ELECT	4.7µF	20%	50V
C053	1-126-960-11	ELECT	1µF	20%	50V
C054	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C055	1-126-964-11	ELECT	10µF	20%	50V
C056	1-126-964-11	ELECT	10µF	20%	50V
C057	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C058	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C059	1-163-257-11	CERAMIC CHIP	180pF	5%	50V
C060	1-126-964-11	ELECT	10µF	20%	50V
C061	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C062	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C063	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C064	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C065	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C066	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C067	1-126-964-11	ELECT	10µF	20%	50V
C069	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C070	1-130-495-00	FILM	0.1µF	5%	50V
C071	1-126-960-11	ELECT	1µF	20%	50V
C072	1-130-495-00	FILM	0.1µF	5%	50V
C073	1-126-964-11	ELECT	10µF	20%	50V
C074	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C075	1-104-665-11	ELECT	100µF	20%	25V
C076	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C077	1-126-791-11	ELECT	10µF	20%	16V
C078	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C079	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C081	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C083	1-104-664-11	ELECT	47µF	20%	25V
C084	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C085	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C086	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C087	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C088	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C501	1-163-005-11	CERAMIC CHIP	470pF	10%	50V
C502	1-163-259-91	CERAMIC CHIP	220pF	5%	50V
C503	1-126-967-11	ELECT	47µF	20%	50V
C504	1-137-194-81	FILM	0.47µF	5%	50V
C505	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C506	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C507	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C509	1-104-664-11	ELECT	47µF	20%	25V
C510	1-126-941-11	ELECT	470µF	20%	25V
C511	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C512	1-110-641-51	ELECT	33µF	20%	200V
C514	1-164-281-11	CERAMIC	0.001µF		2KV

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C515	1-106-383-00	MYLAR	0.047µF	10%	200V
C517	1-137-368-11	FILM	0.0047µF	5%	50V
C518	1-137-368-11	FILM	0.0047µF	5%	50V
C520	1-104-664-11	ELECT	47µF	20%	25V
C521	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C522	1-126-963-11	ELECT	4.7µF	20%	50V
C523	1-117-955-11	FILM	0.17µF	5%	400V
C524	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C525	1-128-562-11	ELECT	47µF	20%	100V
C526	1-128-561-91	ELECT	33µF	20%	100V
C529	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C530	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C531	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C532	1-115-519-11	FILM	0.56µF	5%	250V
C533	1-115-515-11	FILM	0.27µF	5%	250V
C536	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C538	1-117-954-11	FILM	4300pF	3%	1.8KV
C539	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C540	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C541	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C542	1-136-553-11	FILM	0.0015µF	5%	630V
C543	1-162-558-11	CERAMIC	100pF	10%	2KV
C544	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C545	1-115-512-11	FILM	0.15µF	5%	250
C546	1-107-599-11	CERAMIC	27pF	5%	500V
C547	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C548	1-115-509-11	FILM	0.068µF	5%	250V
C549	1-130-495-00	FILM	0.1µF	5%	50V
C550	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C551	1-162-558-11	CERAMIC	100pF	10%	2KV
C552	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C553	1-117-953-11	FILM	0.033µF	5%	400V
C554	1-117-450-11	FILM	0.47µF	10%	250V
C555	1-162-134-11	CERAMIC	470pF	10%	2KV
C556	1-115-522-11	FILM	1µF	5%	250V
C557	1-119-872-91	ELECT	1µF	20%	200V
C558	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C559	1-164-281-11	CERAMIC	0.001µF		2KV
C560	1-163-019-00	CERAMIC CHIP	0.0068µF	10%	50V
C561	1-104-664-11	ELECT	47µF	20%	25V
C562	1-164-281-11	CERAMIC	0.001µF		2KV
C564	1-126-960-11	ELECT	1µF	20%	50V
C565	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C566	1-106-383-00	MYLAR	0.047µF	10%	200V
C567	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C568	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C569	1-107-597-11	CERAMIC	22pF	5%	500V
C570	1-113-481-11	FILM	1000pF	5%	630V
C571	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C601 ⚠	1-117-697-51	CERAMIC	470pF	10%	250V
C602 ⚠	1-113-513-11	FILM	1µF	20%	250V
C603 ⚠	1-115-166-11	FILM	0.22µF	20%	250V
C604 ⚠	1-113-942-91	CERAMIC	0.0047µF		250V
C605 ⚠	1-117-697-51	CERAMIC	470pF	10%	250V
C606 ⚠	1-113-942-91	CERAMIC	0.0047µF		250V
C607	1-137-479-11	FILM	1µF	10%	400V
C608	1-117-849-11	ELECT	330µF	20%	450V
C609	1-117-971-51	MYLAR	1µF	10%	400V
C610	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C611	1-126-964-11	ELECT	10µF	20%	50V
C612	1-125-969-91	CERAMIC	680pF	10%	1KV
C613	1-126-963-11	ELECT	4.7µF	20%	50V
C614	1-104-664-11	ELECT	47µF	20%	25V
C615	1-119-575-11	FILM	0.03µF	3%	1KV
C616	1-130-495-00	FILM	0.1µF	5%	50V
C617	1-104-665-11	ELECT	100µF	20%	10V
C618	1-130-029-00	FILM	8200pF	2%	50V
C619	1-125-969-91	CERAMIC	680pF	10%	1KV
C620	1-111-082-11	ELECT	100µF	20%	35V
C621	1-126-963-11	ELECT	4.7µF	20%	50V
C622	1-126-964-11	ELECT	10µF	20%	50V
C623	1-119-769-11	FILM	0.018µF	3%	1KV
C624	1-111-019-51	ELECT	0.0022F	20%	10V
C625	1-107-906-11	ELECT	10µF	20%	50V
C626	1-137-370-11	FILM	0.01µF	5%	50V
C627	1-128-563-11	ELECT	100µF	20%	100V
C628	1-126-927-11	ELECT	2200µF	20%	10V
C629	1-126-927-11	ELECT	2200µF	20%	10V
C630	1-128-564-11	ELECT	220µF	20%	100V
C631	1-126-943-11	ELECT	2200µF	20%	25V
C632	1-126-943-11	ELECT	2200µF	20%	25V
C634	1-107-950-11	ELECT	3.3µF	20%	200V
C635	1-128-581-11	ELECT	4.7µF	20%	100V
C636	1-107-888-11	ELECT	47µF	20%	25V
C637	1-107-888-11	ELECT	47µF	20%	25V
C638	1-104-664-11	ELECT	47µF	20%	25V
C639	1-107-888-11	ELECT	47µF	20%	25V
C640	1-137-370-11	FILM	0.01µF	5%	50V
C641	1-107-888-11	ELECT	47µF	20%	25V
C642	1-107-888-11	ELECT	47µF	20%	25V
C643	1-128-564-11	ELECT	220µF	20%	100V
C644	1-119-769-11	FILM	0.018µF	3%	1KV
C645	1-102-112-00	CERAMIC	330pF	10%	50V
C647	1-130-495-00	FILM	0.1µF	5%	50V
C648	1-137-370-11	FILM	0.01µF	5%	50V
C901	1-126-961-11	ELECT	2.2µF	20%	50V
C902	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C903	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C904	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C905	1-163-145-00	CERAMIC CHIP	0.0015µF	5%	50V
C906	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C907	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C908	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C909	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C910	1-126-934-11	ELECT	220µF	20%	16V
C911	1-163-259-91	CERAMIC CHIP	220pF	5%	50V
C912	1-106-383-00	MYLAR	0.047µF	10%	200V
C913	1-126-967-11	ELECT	47µF	20%	50V
C914	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C915	1-110-641-51	ELECT	33µF	20%	200V
C917	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V

D

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REF.NO.	PART NO.	DESCRIPTION	REMARK
C918	1-164-004-11	CERAMIC CHIP 0.1µF 10% 25V	
C919	1-137-368-11	FILM 0.0047µF 5% 50V	
C920	1-117-626-31	FILM 2000pF 3% 1.2KV	
C921	1-137-372-11	FILM 0.022µF 5% 50V	
C922	1-106-228-00	MYLAR 0.22µF 10% 100V	
C923	1-106-220-00	MYLAR 0.1µF 10% 100V	
C924	1-106-355-12	MYLAR 0.0033µF 10% 200V	
C925	1-106-220-00	MYLAR 0.1µF 10% 100V	
C926	1-115-516-11	FILM 0.33µF 5% 250V	
C927	1-163-009-11	CERAMIC CHIP 0.001µF 10% 50V	
C928	1-104-665-11	ELECT 100µF 20% 25V	
C929	1-106-383-00	MYLAR 0.047µF 10% 200V	
C931	1-126-964-11	ELECT 10µF 20% 50V	
C932	1-164-004-11	CERAMIC CHIP 0.1µF 10% 25V	
C933	1-164-004-11	CERAMIC CHIP 0.1µF 10% 25V	
C935	1-164-004-11	CERAMIC CHIP 0.1µF 10% 25V	
C936	1-126-967-11	ELECT 47µF 20% 50V	
C1501	1-164-004-11	CERAMIC CHIP 0.1µF 10% 25V	
C1502	1-130-495-00	FILM 0.1µF 5% 50V	
C1503	1-164-004-11	CERAMIC CHIP 0.1µF 10% 25V	
C1504	1-164-161-11	CERAMIC CHIP 0.0022µF 10% 50V	
C1505	1-163-003-11	CERAMIC CHIP 330pF 10% 50V	
C1506	1-104-664-11	ELECT 47µF 20% 25V	
C1507	1-164-004-11	CERAMIC CHIP 0.1µF 10% 25V	
C1508	1-130-495-00	FILM 0.1µF 5% 50V	
C1509	1-104-664-11	ELECT 47µF 20% 25V	
C1513	1-163-251-11	CERAMIC CHIP 100pF 5% 50V	
C1514	1-107-914-11	ELECT 1000µF 20% 25V	
C1515	1-163-809-11	CERAMIC CHIP 0.047µF 10% 25V	
C1516	1-164-004-11	CERAMIC CHIP 0.1µF 10% 25V	
C1517	1-107-894-11	ELECT 220µF 20% 35V	
C1518	1-107-914-11	ELECT 1000µF 20% 25V	
C1519	1-106-228-00	MYLAR 0.22µF 10% 100V	
		<CONNECTOR>	
CN501*	1-508-879-11	BASE POST	
CN502*	1-564-515-11	PLUG, CONNECTOR 12P	
CN503*	1-564-595-11	PLUG, CONNECTOR 14P	
CN504*	1-564-510-11	PLUG, CONNECTOR 7P	
CN505	1-764-101-11	PIN, CONNECTOR (PC BOARD) 2P	
CN506*	1-779-465-11	PIN, CONNECTOR (WITH PWB) 6P	
CN507*	1-564-509-11	PLUG, CONNECTOR 6P	
CN601*	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN602*	1-784-222-11	PIN, CONNECTOR (WITH PWB)	
		<DIODE>	
D001	8-719-109-85	ZENER DIODE RD5.1ESB2	
D003	8-719-045-19	DIODE SPB-26MVWF	
D005	8-719-109-85	ZENER DIODE RD5.1ESB2	
D006	8-719-311-90	DIODE SEL1922D-C	
D009	8-719-311-90	DIODE SEL1922D-C	
D010	8-719-109-85	ZENER DIODE RD5.1ESB2	
D011	8-719-976-99	ZENER DIODE DTZ5.1B	
D012	8-719-976-99	ZENER DIODE DTZ5.1B	
D013	8-719-106-23	ZENER DIODE RD7.5M-B2	
D014	8-719-404-50	DIODE MA111-TX	
D017	8-719-404-50	DIODE MA111-TX	
D018	8-719-109-85	ZENER DIODE RD5.1ESB2	
D020	8-719-062-51	DIODE 1PS226-115	
D021	8-719-062-51	DIODE 1PS226-115	
D022	8-719-062-51	DIODE 1PS226-115	
D023	8-719-062-51	DIODE 1PS226-115	
D024	8-719-109-96	ZENER DIODE RD6.8ESB1	
D028	8-719-109-85	ZENER DIODE RD5.1ESB2	
D030	8-719-801-78	DIODE 1SS184	
D503	8-719-911-19	DIODE 1SS119-25	
D504	8-719-404-50	DIODE MA111-TX	
D505	8-719-110-02	ZENER DIODE RD7.5ESB1	
D506	8-719-977-40	ZENER DIODE DTZ13B	
D507	8-719-404-50	DIODE MA111-TX	
D508	8-719-052-86	DIODE D2L40-TA	
D509	8-719-404-50	DIODE MA111-TX	
D510	8-719-975-77	DIODE SB340	
D511	8-719-061-21	DIODE FMQ-G5FMS	
D512	8-719-109-85	ZENER DIODE RD5.1ESB2	
D513	8-719-109-85	ZENER DIODE RD5.1ESB2	
D514	8-719-911-19	DIODE 1SS119-25	
D515	8-719-911-19	DIODE 1SS119-25	
D516	8-719-028-72	DIODE RGP02-17EL-6433	
D517	8-719-951-30	DIODE ERA91-02	
D518	8-719-404-50	DIODE MA111-TX	
D519	8-719-911-19	DIODE 1SS119-25	
D520	8-719-948-45	DIODE ERA22-08	
D522	8-719-911-19	DIODE 1SS119-25	
D523	8-719-911-19	DIODE 1SS119-25	
D524	8-719-028-72	DIODE RGP02-17EL-6433	
D525	8-719-109-93	ZENER DIODE RD6.2ESB2	
D601	⚠ 8-719-510-53	DIODE D4SB60L	
D602	8-719-911-19	DIODE 1SS119-25	
D603	8-719-029-04	DIODE D5L60	
D604	8-719-510-02	DIODE D1NS4	
D606	8-719-979-64	DIODE UF4005PKG23	
D607	8-719-110-31	ZENER DIODE RD12ESB2	
D608	8-719-911-19	DIODE 1SS119-25	
D609	8-719-302-43	DIODE EL1Z	
D610	8-719-947-06	DIODE RGP10JPKG23	
D611	8-719-066-51	DIODE P6KE170AG23	
D612	8-719-028-45	DIODE D2L20U	
D613	8-719-022-97	DIODE D2S4MF	
D614	8-719-510-64	DIODE S2LA20F	
D615	8-719-052-86	DIODE D2L40-TA	
D616	8-719-052-86	DIODE D2L40-TA	
D617	8-719-052-91	DIODE D4SBS4-F	
D619	8-719-022-97	DIODE D2S4MF	
D620	8-719-110-63	ZENER DIODE RD24ESB3	
D621	8-719-911-19	DIODE 1SS119-25	
D622	8-719-110-31	ZENER DIODE RD12ESB2	
D623	8-719-404-50	DIODE MA111-TX	
D624	8-719-977-28	ZENER DIODE DTZ10B	
D902	8-719-158-49	ZENER DIODE RD12SB2	
D903	8-719-404-50	DIODE MA111-TX	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D906	8-719-404-50	DIODE MA111-TX	
D907	8-719-404-50	DIODE MA111-TX	
D908	8-719-404-50	DIODE MA111-TX	
D909	8-719-109-85	ZENER DIODE RD5.1ESB2	
D910	8-719-110-36	ZENER DIODE RD13ESB2	
D912	8-719-110-46	ZENER DIODE RD16ESB3	
D913	8-719-979-58	DIODE EGP10D	
D914	8-719-110-46	ZENER DIODE RD16ESB3	
D915	8-719-911-19	DIODE 1SS119-25	
D916	8-719-056-95	ZENER DIODE UDZ-TE-17-22B	
D917	8-719-052-86	DIODE D2L40-TA	
D918	8-719-158-49	ZENER DIODE RD12SB2	
D919	8-719-109-85	ZENER DIODE RD5.1ESB2	
D1501	8-719-109-85	ZENER DIODE RD5.1ESB2	
D1502	8-719-109-85	ZENER DIODE RD5.1ESB2	
D1503	8-719-911-19	DIODE 1SS119-25	
D1504	8-719-908-03	DIODE GP08D	
D1505	8-719-908-03	DIODE GP08D	
D1506	8-719-908-03	DIODE GP08D	
		<FUSE>	
F601 ⚠	1-576-233-11	FUSE (H.B.C.) (6.3A/250V)	
		<FERRITE BEAD>	
FB001	1-414-598-11	INDUCTOR CHIP	
FB002	1-414-598-11	INDUCTOR CHIP	
FB501	1-410-397-21	FERRITE 1.1µH	
FB502	1-410-397-21	FERRITE 1.1µH	
FB601	1-410-396-71	FERRITE 0.45µH	
FB602	1-410-397-21	FERRITE 1.1µH	
FB901	1-410-397-21	FERRITE 1.1µH	
		<IC>	
IC001	8-759-531-24	IC MB90553PF-G-120-BND	
IC002	8-759-442-20	IC 24LC21A/SN	
IC004	8-759-454-79	IC 24LC16BT/SN	
IC005	8-759-162-80	IC MM1170BFB	
IC007	8-752-078-46	IC CXA2043Q	
IC008	8-759-701-59	IC NJM78M09FA	
IC009	8-759-925-74	IC SN74HC04ANS	
IC010	8-752-083-83	IC CXA2044M-T6	
IC011	8-759-168-20	IC TA78L09S	
IC013	8-759-269-09	IC SN74HCT04ANS	
IC501	8-759-100-96	IC UPC4558G2	
IC502	8-759-803-42	IC LA6500-FA	
IC601	8-749-013-76	IC PQ6RD83B	
IC602	8-759-469-10	IC TOP223PF1	
IC603	8-749-013-78	IC MCR5102	
IC604	8-749-012-49	IC DM-57N	
IC605	8-759-231-53	IC TA7805S	
IC901	8-759-467-70	IC BA9756FS-E2	
IC902	8-759-510-73	IC BA10393F-E2	
IC1501	8-759-803-42	IC LA6500-FA	
IC1502	8-759-822-38	IC LA6510	
IC1504	8-759-980-58	IC TDA8172	
		<COIL>	
L001	1-412-537-31	INDUCTOR 100µH	
L002	1-412-549-11	INDUCTOR 1mH	
L003	1-410-521-11	INDUCTOR 100µH	
L501	1-412-537-31	INDUCTOR 100µH	
L502	1-406-675-11	INDUCTOR 4.7mH	
L503	1-406-675-11	INDUCTOR 4.7mH	
L504	1-416-398-11	COIL, HORIZONTAL LINEARITY	
L505	1-406-675-11	INDUCTOR 4.7mH	
L506	1-406-972-11	INDUCTOR 15µH	
L602	1-412-537-31	INDUCTOR 100µH	
L603	1-412-529-11	INDUCTOR 22µH	
L604	1-412-529-11	INDUCTOR 22µH	
L605	1-412-529-11	INDUCTOR 22µH	
L606	1-412-529-11	INDUCTOR 22µH	
L901	1-412-537-31	INDUCTOR 100µH	
L902	1-406-660-41	INDUCTOR 15µH	
		<PHOTO COUPLER>	
PH601	8-749-010-64	PHOTO COUPLER PC123F2	
PH602	8-749-010-64	PHOTO COUPLER PC123F2	
		<IC LINK>	
PS501⚠	1-533-592-31	LINK, IC (1.6A/90V AC, 60V DC)	
PS601⚠	1-533-593-31	LINK, IC (2A/90V AC, 60V DC)	
PS901⚠	1-533-592-31	LINK, IC (1.6A/90V AC, 60V DC)	
		<TRANSISTOR>	
Q001	8-729-901-00	TRANSISTOR DTC124EK	
Q002	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q003	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q004	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q005	8-729-901-00	TRANSISTOR DTC124EK	
Q007	8-729-027-31	TRANSISTOR DTA124EKA-T146	
Q008	8-729-920-72	TRANSISTOR 2SA1037K-T-146-QR	
Q009	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q010	8-729-920-72	TRANSISTOR 2SA1037K-T-146-QR	
Q503	8-729-920-72	TRANSISTOR 2SA1037K-T-146-QR	
Q504	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q505	8-729-920-72	TRANSISTOR 2SA1037K-T-146-QR	
Q507	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q509	8-729-901-97	TRANSISTOR 2SA1036K-Q	
Q510	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q511	8-729-031-89	TRANSISTOR 2SC3941A-Q(TA)	
Q512	8-729-807-12	TRANSISTOR 2SD1802-S	
Q514	8-729-035-54	TRANSISTOR 2SJ449	
Q516	8-729-800-32	TRANSISTOR 2SC2362K-G	
Q517	8-729-140-50	TRANSISTOR 2SC3209LK	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
Q518	8-729-041-95	TRANSISTOR IRLI540GLF33			
Q519	8-729-041-64	TRANSISTOR BU2527AX-ON5020			
Q520	8-729-041-93	TRANSISTOR IRLI530GLF33			
Q521	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q522	8-729-041-93	TRANSISTOR IRLI530GLF33			
Q523	8-729-041-93	TRANSISTOR IRLI530GLF33			
Q524	8-729-041-93	TRANSISTOR IRLI530GLF33			
Q525	8-729-920-72	TRANSISTOR 2SA1037K-T-146-QR			
Q527	8-729-033-25	TRANSISTOR DTC114GKA			
Q528	8-729-204-91	TRANSISTOR 2SA1049-GR			
Q529	8-729-178-43	TRANSISTOR 2SC2784-E			
Q530	8-729-207-89	TRANSISTOR 2SA1358-Y			
Q531	8-729-207-82	TRANSISTOR 2SC3421-Y			
Q532	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q601	8-729-033-25	TRANSISTOR DTC114GKA			
Q602	8-729-029-40	TRANSISTOR DTA124ESA			
Q603	8-729-033-25	TRANSISTOR DTC114GKA			
Q604	8-729-033-26	TRANSISTOR DTA114GKAT146			
Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q901	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q903	8-729-901-97	TRANSISTOR 2SA1036K-Q			
Q904	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q905	8-729-035-54	TRANSISTOR 2SJ449			
Q906	8-729-041-94	TRANSISTOR IRFPE50LF21			
		<RESISTOR>			
R001	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R003	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R005	1-216-025-00	RES,CHIP	100	5%	1/10W
R006	1-216-049-00	RES,CHIP	1K	5%	1/10W
R007	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R008	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R009	1-216-049-00	RES,CHIP	1K	5%	1/10W
R011	1-216-049-00	RES,CHIP	1K	5%	1/10W
R012	1-216-045-00	RES,CHIP	680	5%	1/10W
R013	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R015	1-216-017-91	RES,CHIP	47	5%	1/10W
R016	1-216-041-00	RES,CHIP	470	5%	1/10W
R017	1-216-041-00	RES,CHIP	470	5%	1/10W
R018	1-216-017-91	RES,CHIP	47	5%	1/10W
R019	1-216-037-00	RES,CHIP	330	5%	1/10W
R020	1-216-037-00	RES,CHIP	330	5%	1/10W
R023	1-216-025-00	RES,CHIP	100	5%	1/10W
R026	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R027	1-216-049-00	RES,CHIP	1K	5%	1/10W
R028	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R029	1-216-049-00	RES,CHIP	1K	5%	1/10W
R030	1-216-041-00	RES,CHIP	470	5%	1/10W
R031	1-216-049-00	RES,CHIP	1K	5%	1/10W
R032	1-216-049-00	RES,CHIP	1K	5%	1/10W
R033	1-216-037-00	RES,CHIP	330	5%	1/10W
R034	1-216-049-00	RES,CHIP	1K	5%	1/10W
R035	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R036	1-216-073-00	RES,CHIP	10K	5%	1/10W
R037	1-216-049-00	RES,CHIP	1K	5%	1/10W
R038	1-216-049-00	RES,CHIP	1K	5%	1/10W
R039	1-216-049-00	RES,CHIP	1K	5%	1/10W
R040	1-216-037-00	RES,CHIP	330	5%	1/10W
R042	1-216-073-00	RES,CHIP	10K	5%	1/10W
R043	1-216-037-00	RES,CHIP	330	5%	1/10W
R044	1-216-295-00	SHORT	0		
R045	1-216-295-00	SHORT	0		
R046	1-216-295-00	SHORT	0		
R048	1-216-073-00	RES,CHIP	10K	5%	1/10W
R049	1-216-073-00	RES,CHIP	10K	5%	1/10W
R051	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R052	1-216-025-00	RES,CHIP	100	5%	1/10W
R053	1-216-097-00	RES,CHIP	100K	5%	1/10W
R055	1-216-089-00	RES,CHIP	47K	5%	1/10W
R056	1-216-017-91	RES,CHIP	47	5%	1/10W
R057	1-216-025-00	RES,CHIP	100	5%	1/10W
R058	1-216-049-00	RES,CHIP	1K	5%	1/10W
R059	1-216-089-00	RES,CHIP	47K	5%	1/10W
R061	1-216-073-00	RES,CHIP	10K	5%	1/10W
R062	1-216-025-00	RES,CHIP	100	5%	1/10W
R063	1-216-025-00	RES,CHIP	100	5%	1/10W
R065	1-216-105-91	RES,CHIP	220K	5%	1/10W
R066	1-216-073-00	RES,CHIP	10K	5%	1/10W
R067	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R068	1-216-073-00	RES,CHIP	10K	5%	1/10W
R069	1-216-049-00	RES,CHIP	1K	5%	1/10W
R070	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R071	1-216-295-00	SHORT	0		
R072	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R073	1-216-073-00	RES,CHIP	10K	5%	1/10W
R074	1-216-049-00	RES,CHIP	1K	5%	1/10W
R075	1-216-681-11	METAL CHIP	18K	0.50%	1/10W
R076	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R077	1-216-049-00	RES,CHIP	1K	5%	1/10W
R078	1-216-073-00	RES,CHIP	10K	5%	1/10W
R079	1-216-049-00	RES,CHIP	1K	5%	1/10W
R080	1-216-049-00	RES,CHIP	1K	5%	1/10W
R081	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R082	1-216-073-00	RES,CHIP	10K	5%	1/10W
R083	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R084	1-216-073-00	RES,CHIP	10K	5%	1/10W
R086	1-216-073-00	RES,CHIP	10K	5%	1/10W
R087	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R089	1-216-025-00	RES,CHIP	100	5%	1/10W
R090	1-216-025-00	RES,CHIP	100	5%	1/10W
R091	1-216-025-00	RES,CHIP	100	5%	1/10W
R092	1-216-025-00	RES,CHIP	100	5%	1/10W
R093	1-216-025-00	RES,CHIP	100	5%	1/10W
R094	1-216-025-00	RES,CHIP	100	5%	1/10W
R095	1-216-025-00	RES,CHIP	100	5%	1/10W
R096	1-216-025-00	RES,CHIP	100	5%	1/10W
R098	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R099	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R501	1-216-097-00	RES,CHIP	100K	5%	1/10W
R502	1-216-049-00	RES,CHIP	1K	5%	1/10W
R503	1-216-097-00	RES,CHIP	100K	5%	1/10W

D

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R504	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R505	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R506	1-216-033-00	RES,CHIP	220	5%	1/10W	
R507	1-216-093-91	RES,CHIP	68K	5%	1/10W	
R508	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R509	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R510	1-216-033-00	RES,CHIP	220	5%	1/10W	
R511	1-216-025-00	RES,CHIP	100	5%	1/10W	
R512	1-219-755-11	CARBON	10M	5%	1/2W	
R513	1-216-097-00	RES,CHIP	100K	5%	1/10W	
R514	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R515	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R516	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R517	1-249-397-11	CARBON	22	5%	1/4W	F
R518	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R519	1-216-065-00	RES,CHIP	4.7K	5%	1/10W	
R520	1-216-097-00	RES,CHIP	100K	5%	1/10W	
R521	1-219-510-11	CARBON	470K	5%	1/2W	
R522	1-216-065-00	RES,CHIP	4.7K	5%	1/10W	
R523	1-216-097-00	RES,CHIP	100K	5%	1/10W	
R524	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R525	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R526	1-260-296-11	CARBON	2.2	5%	1/2W	
R527	1-215-860-11	METAL OXIDE	33	5%	1W	F
R528	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R529	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R530	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R531	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R532	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R533	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R534	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R535	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R536	1-216-425-11	METAL OXIDE	56	5%	1W	F
R537	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R538	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R539	1-219-677-11	METAL	1.8	5%	10W	
R540	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R541	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R542	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R543	1-249-429-11	CARBON	10K	5%	1/4W	
R544	1-216-423-11	METAL OXIDE	27	5%	1W	F
R545	1-216-089-00	RES,CHIP	47K	5%	1/10W	
R546	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R547	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R548	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R549	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R550	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R551	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R552	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R553	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R554	1-249-429-11	CARBON	10K	5%	1/4W	F
R555	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R556	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R557	1-216-385-11	METAL OXIDE	0.47	5%	3W	F
R558	1-216-097-00	RES,CHIP	100K	5%	1/10W	
R559	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R560	1-260-096-11	CARBON	560	5%	1/2W	
R561	1-249-413-11	CARBON	470	5%	1/4W	F
R562	1-260-320-11	CARBON	220	5%	1/2W	
R563	1-215-886-11	METAL OXIDE	100	5%	2W	F
R564	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R565	1-216-079-00	RES,CHIP	18K	5%	1/10W	
R566	1-260-316-51	CARBON	100	5%	1/2W	
R567	1-249-403-11	CARBON	68	5%	1/4W	
R568	1-214-840-00	METAL	100	1%	1/2W	
R569	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R570	1-260-344-11	CARBON	22K	5%	1/2W	
R571	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R572	1-249-437-11	CARBON	47K	5%	1/4W	
R573	1-249-437-11	CARBON	47K	5%	1/4W	
R574	1-249-437-11	CARBON	47K	5%	1/4W	
R575	1-249-437-11	CARBON	47K	5%	1/4W	
R576	1-249-437-11	CARBON	47K	5%	1/4W	
R577	1-249-389-11	CARBON	4.7	5%	1/4W	F
R578	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R579	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R580	1-249-430-11	CARBON	12K	5%	1/4W	
R582	1-249-413-11	CARBON	470	5%	1/4W	F
R583	1-249-389-11	CARBON	4.7	5%	1/4W	F
R584	1-249-389-11	CARBON	4.7	5%	1/4W	F
R586	1-216-081-00	RES, CHIP	22K	5%	1/10W	
R587	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R589	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R590	1-247-815-91	CARBON	220	5%	1/4W	
R591	1-249-393-11	CARBON	10	5%	1/4W	F
R592	1-216-341-11	METAL OXIDE	0.22	5%	1W	F
R593	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R594	1-216-689-11	METAL CHIP	39K	0.50%	1/10W	
R595	1-216-065-00	RES,CHIP	4.7K	5%	1/10W	
R596	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R597	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R601 ⚠	1-220-825-91	CARBON	330K	5%	1/2W	
R602	1-260-089-11	CARBON	150	5%	1/2W	
R603	1-249-403-11	CARBON	68	5%	1/4W	
R604	1-215-432-00	METAL	3K	1%	1/4W	
R605	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R606	1-249-429-11	CARBON	10K	5%	1/4W	
R607	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R608	1-218-191-11	METAL OXIDE	0.1	5%	1W	F
R610	1-215-429-00	METAL	2.2K	1%	1/4W	
R611	1-249-389-11	CARBON	4.7	5%	1/4W	F
R613	1-247-791-91	CARBON	22	5%	1/4W	
R614	1-215-861-00	METAL OXIDE	47	5%	1W	F
R615	1-247-815-91	CARBON	220	5%	1/4W	
R616	1-249-441-11	CARBON	100K	5%	1/4W	
R617	1-249-417-11	CARBON	1K	5%	1/4W	
R618	1-249-441-11	CARBON	100K	5%	1/4W	
R621	1-215-459-00	METAL	39K	1%	1/4W	
R622	1-215-481-00	METAL	330K	1%	1/4W	
R623	1-249-417-11	CARBON	1K	5%	1/4W	
R624	1-249-417-11	CARBON	1K	5%	1/4W	
R625	1-249-413-11	CARBON	470	5%	1/4W	F

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R626	1-249-417-11	CARBON	1K	5% 1/4W	
R627	1-218-191-11	METAL OXIDE	0.1	5% 1W	F
R628	1-249-417-11	CARBON	1K	5% 1/4W	
R629	1-215-443-00	METAL	8.2K	1% 1/4W	
R630	1-249-421-11	CARBON	2.2K	5% 1/4W	
R631	1-249-429-11	CARBON	10K	5% 1/4W	
R632	1-249-429-11	CARBON	10K	5% 1/4W	
R633	1-215-477-00	METAL	220K	1% 1/4W	
R634	1-215-477-00	METAL	220K	1% 1/4W	
R635	1-215-477-00	METAL	220K	1% 1/4W	
R636	1-215-451-00	METAL	18K	1% 1/4W	
R637	1-215-421-00	METAL	1K	1% 1/4W	
R638	1-249-429-11	CARBON	10K	5% 1/4W	
R639	1-249-441-11	CARBON	100K	5% 1/4W	
R640	1-216-049-00	RES,CHIP	1K	5% 1/10W	
R641	1-249-425-11	CARBON	4.7K	5% 1/4W	
R901	1-216-065-00	RES,CHIP	4.7K	5% 1/10W	
R902	1-216-097-00	RES,CHIP	100K	5% 1/10W	
R903	1-218-762-11	METAL CHIP	270K	0.50% 1/10W	
R904	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R905	1-216-061-00	RES,CHIP	3.3K	5% 1/10W	
R906	1-216-109-00	RES,CHIP	330K	5% 1/10W	
R907	1-216-065-00	RES,CHIP	4.7K	5% 1/10W	
R908	1-249-397-11	CARBON	22	5% 1/4W	F
R909	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R910	1-216-397-11	METAL OXIDE	4.7	5% 3W	F
R911	1-216-081-00	RES,CHIP	22K	5% 1/10W	
R912	1-216-057-00	RES,CHIP	2.2K	5% 1/10W	
R913	1-216-025-00	RES,CHIP	100	5% 1/10W	
R914	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R915	1-216-065-00	RES,CHIP	4.7K	5% 1/10W	
R916	1-216-033-00	RES,CHIP	220	5% 1/10W	
R917	1-249-397-11	CARBON	22	5% 1/4W	F
R918	1-216-033-00	RES,CHIP	220	5% 1/10W	
R919	1-219-727-11	METAL	68	5% 10W	
R920	1-249-389-11	CARBON	4.7	5% 1/4W	F
R921	1-219-748-11	CARBON	4.7K	5% 1/2W	
R922	1-216-689-11	METAL CHIP	39K	0.50% 1/10W	
R923	1-216-655-11	METAL CHIP	1.5K	0.50% 1/10W	
R924	1-220-825-11	CARBON	330K	5% 1/2W	
R925	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R926	1-219-748-11	CARBON	4.7K	5% 1/2W	
R927	1-216-049-00	RES,CHIP	1K	5% 1/10W	
R928	1-216-655-11	METAL CHIP	1.5K	0.50% 1/10W	
R929	1-216-681-11	METAL CHIP	18K	0.50% 1/10W	
R930	1-216-089-00	RES,CHIP	47K	5% 1/10W	
R931	1-216-075-00	RES,CHIP	12K	5% 1/10W	
R932	1-216-089-00	RES,CHIP	47K	5% 1/10W	
R933	1-216-693-11	METAL CHIP	56K	0.50% 1/10W	
R934	1-216-655-11	METAL CHIP	1.5K	0.50% 1/10W	
R935	1-216-691-11	METAL CHIP	47K	0.50% 1/10W	
R936	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R937	1-216-025-00	RES,CHIP	100	5% 1/10W	
R938	1-216-089-00	RES,CHIP	47K	5% 1/10W	
R939	1-216-033-00	RES,CHIP	220	5% 1/10W	
R940	1-216-089-00	RES,CHIP	47K	5% 1/10W	
R942	1-216-669-11	METAL CHIP	5.6K	0.50% 1/10W	
R943	1-216-065-00	RES,CHIP	4.7K	5% 1/10W	
R944	1-216-081-00	RES,CHIP	22K	5% 1/10W	
R945	1-216-081-00	RES,CHIP	22K	5% 1/10W	
R946	1-216-059-00	RES,CHIP	2.7K	5% 1/10W	
R947	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R948	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R951	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R1001	1-216-089-00	RES,CHIP	47K	5% 1/10W	
R1002	1-216-039-00	RES,CHIP	390	5% 1/10W	
R1003	1-216-093-91	RES,CHIP	68K	5% 1/10W	
R1004	1-216-675-11	METAL CHIP	10K	0.50% 1/10W	
R1005	1-216-667-11	METAL CHIP	4.7K	0.50% 1/10W	
R1006	1-249-389-11	CARBON	4.7	5% 1/4W	F
R1007	1-216-065-00	RES,CHIP	4.7K	5% 1/10W	
R1008	1-216-049-00	RES,CHIP	1K	5% 1/10W	
R1009	1-216-049-00	RES,CHIP	1K	5% 1/10W	
R1011	1-216-041-00	RES,CHIP	470	5% 1/10W	
R1012	1-216-025-00	RES,CHIP	100	5% 1/10W	
R1013	1-216-025-00	RES,CHIP	100	5% 1/10W	
R1021	1-216-097-00	RES,CHIP	100K	5% 1/10W	
R1022	1-216-089-00	RES,CHIP	47K	5% 1/10W	
R1024	1-216-025-00	RES,CHIP	100	5% 1/10W	
R1025	1-216-025-00	RES,CHIP	100	5% 1/10W	
R1028	1-216-065-00	RES,CHIP	4.7K	5% 1/10W	
R1029	1-216-049-00	RES,CHIP	1K	5% 1/10W	
R1030	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R1031	1-216-057-00	RES,CHIP	2.2K	5% 1/10W	
R1032	1-216-057-00	RES,CHIP	2.2K	5% 1/10W	
R1035	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R1501	1-216-077-00	RES,CHIP	15K	5% 1/10W	
R1502	1-216-075-00	RES,CHIP	12K	5% 1/10W	
R1503	1-216-075-00	RES,CHIP	12K	5% 1/10W	
R1504	1-216-689-11	RES,CHIP	39K	5% 1/10W	
R1505	1-249-383-11	CARBON	1.5	5% 1/4W	F
R1506	1-216-473-11	METAL OXIDE	56	5% 3W	F
R1507	1-249-383-11	CARBON	1.5	5% 1/4W	F
R1508	1-216-057-00	RES,CHIP	2.2K	5% 1/10W	
R1509	1-216-298-00	RES,CHIP	2.2	5% 1/10W	
R1510	1-249-383-11	CARBON	1.5	5% 1/4W	F
R1511	1-216-077-00	RES,CHIP	15K	5% 1/10W	
R1512	1-216-105-91	RES,CHIP	220K	5% 1/10W	
R1513	1-216-298-00	RES,CHIP	2.2	5% 1/10W	
R1514	1-249-383-11	CARBON	1.5	5% 1/4W	F
R1515	1-216-089-00	RES,CHIP	47K	5% 1/10W	
R1516	1-215-885-00	METAL OXIDE	68	5% 2W	F
R1517	1-216-069-00	RES,CHIP	6.8K	5% 1/10W	
R1518	1-216-077-00	RES,CHIP	15K	5% 1/10W	
R1519	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R1520	1-216-097-00	RES,CHIP	100K	5% 1/10W	
R1521	1-249-383-11	CARBON	1.5	5% 1/4W	F
R1522	1-216-083-00	RES,CHIP	27K	5% 1/10W	
R1523	1-215-886-11	METAL OXIDE	100	5% 2W	F
R1525	1-216-077-00	RES,CHIP	15K	5% 1/10W	
R1526	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1527	1-216-295-00	SHORT	0		

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

D

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1531	1-214-798-21	METAL	1.8	1%	1/2W	
R1532	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1533	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R1534	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R1535	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1536	1-249-413-11	CARBON	470	5%	1/4W	F
R1537	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1538	1-215-866-11	METAL OXIDE	330	5%	1W	F
R1539	1-249-381-11	CARBON	1	5%	1/4W	F
R1540	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R1541	1-214-798-21	METAL	1.8	1%	1/2W	
R1542	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
		<VARIABLE RESISTOR>				
⧓ RV901	⚠1-241-767-21	RES, ADJ, CERMET	100K (HV ADJ)			
		<RELAY>				
RY501	1-755-137-11	RELAY				
RY601	1-515-840-11	RELAY				
RY602	1-515-669-21	RELAY				
		<SWITCH>				
S001	1-571-532-21	SWITCH, TACTILE (CONT+)				
S002	1-571-532-21	SWITCH, TACTILE (CONT-)				
S003	1-571-532-21	SWITCH, TACTILE (OSD)				
S004	1-571-532-21	SWITCH, TACTILE (BRT+)				
S005	1-571-532-21	SWITCH, TACTILE (BRT-)				
S006	1-571-532-21	SWITCH, TACTILE (INPUT)				
S007	1-571-532-21	SWITCH, TACTILE (ASC)				
S008	1-571-532-21	SWITCH, TACTILE (RESET)				
SW601	⚠1-571-433-31	SWITCH, PUSH (AC POWER)				
		<SPARK GAP>				
SG901	1-519-422-11	GAP, SPARK				
SG902	1-517-499-21	GAP, SPARK				
		<TRANSFORMER>				
T501	1-431-056-11	TRANSFORMER, HORIZONTAL DRIVE				
T502	1-431-414-11	TRANSFORMER, FERRITE (DFT)				
T503	1-411-594-11	INDUCTOR	5mH			
T504	1-431-443-11	TRANSFORMER, FERRITE (HST)				
T505	1-429-301-11	TRANSFORMER, FERRITE (HCT)				
T601	⚠1-429-180-11	TRANSFORMER, LINE FILTER				
T602	1-431-445-11	TRANSFORMER, CONVERTER (PFT)				
T603	1-431-416-11	TRANSFORMER, CONVERTER (SRT)				
T604	⚠1-431-446-12	TRANSFORMER, CONVERTER (PIT)				
T901	⚠X-4035-177-1	TRANSFORMER ASSY, FLYBACK				(NX-4401//J1M4)
T902	1-411-567-11	INDUCTOR	500µH			
		<THERMISTOR>				
TH501	1-807-796-11	THERMISTOR				
TH601	⚠1-809-260-11	THERMISTOR, POWER				
THP601	1-809-827-11	THERMISTOR, POSITIVE				
		<VARISTOR>				
VDR601	1-810-622-11	VARISTOR				
VDR602	⚠1-801-268-51	VARISTOR TNR14V471K660				
		<CRYSTAL>				
X001	1-567-781-61	VIBRATOR, CRYSTAL (4MHz)				

GDM-200PS/200PST/200PST9

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